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LECTURES

ON THE

GRAVID UTERUS, AND ON THE DISEASES OF WOMEN AND CHILDREN.

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Lecture IV.

Of the Circulation of the Blood in the Ovum.

The circulation of blood in the ovum, Gentlemen, is, in its nature, complicated, and in a view to a more lucid consideration, it may be divided into two kinds—the maternal, I mean, and the fœtal. The maternal circulation is exceedingly simple; the blood enters the cells of the placenta by means of the uterine arteries, and leaves them by means of the uterine veins; so that while the ovum remains in the uterus, a copious tide of the maternal blood flows through those cells, and this, when the ovum is detached, prematurely supplies the blood of those copious floodings, which we have already largely considered. The circulation of the fœtus is a good deal more complicated, but with a little attention on our parts, it may be easily enough understood; it may be divided into three parts, the greater circulation, the lesser circulation, and the circulation peculiar to the fœtal state. In the circulation peculiar to the fœtus, the blood issuing from the internal iliacs by means of the umbilical arteries, is conveyed to the placenta, and diffused over its substance, which it fills like a sponge, floating at length into the umbilical vein, by which it is transmitted to the vena portarum of the liver; this is the first stage of the circulation. The blood in the vena porta may, in imagination, be divided into three portions, and of those three portions, two pass by means of the canalis venosus, formerly mentioned to you from the vena porta of the liver, to the vena cava inferior direct, and thence to the right auricle of the heart, while the remaining or third portion passes through the liver in the ordinary way, so as to reach the venæ cavæ hepaticæ, the vena cava inferior, and the right auricle of the heart; and this is the second stage of the circulation, whereby, as we find, all the blood enters ultimately into the right auricle, two portions passing into this cavity by the canalis venosus, and one through the liver in the ordinary way. When the right auricle contracts, of the three portions of blood mentioned, one passes direct into the left auricle, through the foramen ovale, and thence to the left ventricle, and the ascending and descending aorta, following the ordinary route; but the same contraction which throws one portion from the right auricle to the left, through the foramen ovale, impels also the two other portions from the right auricle to the right ventricle, in the usual way, to be thrown afterwards out of the ventricle into the pulmonary artery, which, as every anatomist knows, is inserted into it. In the trunk of the pulmonary artery, the two portions of the blood separate, the larger passing direct into the aorta descendens, by a short and capacious tube, which leads direct from the one vessel to the other; the canalis venosus before demonstrated, and the blood in the pulmonary arteries flowing through the lungs into the left auricle, ventricle, ascending aorta, and aorta descendens, in the same manner as in the adult; and this it is which constitutes the third and most complex stage of the circulation. All the three portions of blood, therefore, ultimately reach the aorta descendens, though by different channels, and not simultaneously; and then, which completes the fourth stage of the circulation, this blood passes along the aorta to the common and the internal iliacs, the point from which it first issued. Thus, then, to recapitulate:—in the circulation peculiar to the fœtus, the blood in the first stage passes from the internal iliacs to the vena portarum, through the umbilical vessels, being diffused over the vascular part of the placenta; in the second stage of this circulation, this blood passes from the vena portarum, into the right auricle, in part through the canalis

venosus, and in part through the liver, by the same passages as in the adult; in the third stage of its circulation, the blood enters the descending aorta by three different routes, through the lungs, the canalis arteriosus, and the foramen ovale; and, in the last or fourth stage, this blood flows to the internal iliacs, from which the circuit commenced, by the descending aorta, and the common iliacs.

From what has been stated, it is obvious, that, in the fœtus, it is not, as in the adult, the whole, but a part, and, indeed, a small part only, of the blood which is transmitted through the lungs; hence the main difference between the fœtal and the adult circulation. From what has been stated, too, it is evident, that in the fœtus, the blood which flows along the aorta is derived from both sides of the heart, and is propelled equally by both ventricles, the left and right, which, in the fœtal heart accordingly, are of equal thickness, and hence an important difference between the greater circulation of the adult and the fœtus. I shall merely add, further, that although the placenta is filled, like a sponge, with two kinds of blood, the maternal, I mean, and fœtal, yet these two sorts of blood, though most nearly and extensively approximated, are never in actual contact with each other; the maternal blood lodges in the cells of the placentar structure, the fœtal in the vessels, the two fluids, like the air, and the blood in the lungs being separated by membranous texture, in thickness, perhaps, not exceeding one part in a thousand of an inch. During our aquatic, or fœtal life, the blood cannot be ventilated in the lungs; and this explains to us why it is, that a small part only is transmitted through these organs to nourish their substance, and to keep the vessels pervious.

I now show you a preparation of the heart of the fœtus, in which one of the auricles has been cut away, namely, the left, in order to show you the foramen, which, as you may perceive, is wide open.

In this preparation of the lungs and heart, you see the pulmonary artery and descending aorta, together with the canalis arteriosus, by which the two communicated; there is a packet of bristles placed beneath the canalis arteriosus, in order to direct your eye.

It sometimes happens that, in the adult, the foramen ovale remains open through life, and here is an example of this. This preparation was taken from a large heart; and the foramen ovale is so large, that you might put your fore-finger into it; this, however, is a rare occurrence.

[Dr. Blundell also exhibited various other illustrative preparations of the conversion of the fœtal circulation into that of the adult.]

In the fœtus, the circulation is of one kind; in the adult vascular system, of another; and we will now, if you please, proceed to consider this change, after birth is accomplished. To understand this matter right, you must remember that it is a law of the vascular system, confirmed by various observations on its different parts, that when a canal or aperture is no longer of service in the circulation, it shall close itself gradually, so as to become more or less completely closed: thus, in the adult, if you tie a large artery, so much of the artery above and below the ligature, as is no longer serviceable in the circulation, gradually contracts itself, and becomes converted into a sort of ligament, and the same holds true of the veins. Now when the fœtus comes into the world, it is usual to tie the umbilical cord; and, in consequence of this ligature, the umbilical vessels, together with the canalis venosus, become no longer of service in the circulation, and therefore they become closed in conformity with the law before announced. Hence we find in the adult, that the umbilical vein is become converted into a mere ligamentous vestige, well known to anatomists under the name of the ligamentum rotundum of the liver. Again, when the child comes into the world, it begins to respire, and its lungs playing, the blood passes through them with very great facility; and the consequence of this is, that a large quantity of blood passing through the lungs, and a much smaller quantity flowing through the foramen ovale and canalis arteriosus, these canals first contract, and then close. The explanation is at least plausible, though, perhaps, not altogether satisfactory. Now from what has been already stated, you may perceive, on a little reflection, that the peculiar circulation of the fœtus depends entirely in the existence of these most important channels; while they are open, the circulation remains fœtal; when they are closed, it becomes that of the adult; the change proceeds upon simple hydraulic principles: when the umbilical arteries, the umbilical veins, the canalis venosus, the canalis arteriosus, and the foramen ovale; and that these are no longer than tubes and apertures, which are essential to the fœtal circulation. Those causes, therefore, which occasion the closure of those canals peculiar to the fœtal vascular system, are also the causes which, after birth, occasion the conversion of the fœtal circulation into that of the adult, and these causes are the division of the funis, and the play of the lungs acting in co-operation with that ruling principle of the vascular system before mentioned, namely, that canals, no longer ser-

viceable in the transmitting of the blood, will contract and close themselves up in a manner more or less complete.

Functions of the Placenta.—Having explained to you, in our previous remarks, the structure of the placenta, and the circulations which are proceeding through it, I may now proceed to a subject which before would not have been readily comprehended, I mean, the functions which this important organ, the placenta, is discharging. There is no organ of the body, in either state of our existence, which, during our stay in the uterus, is of more importance to our welfare, than the after-birth; and its functions, therefore, are well worth our study. By the after-birth, I conceive it is, that the fœtus receives its supplies of nutriment; for I have already endeavoured to prove to you, that it cannot be nourished by the liquor amnii. The cells of the placenta, as before stated, are full of the maternal blood, and the vessels are filled with the blood of the fœtus; and there seems to be a communication between the cells and the vessels by means of very minute pores—passages impervious to the integral red blood, but transmitting the subtler parts; and by means of those pores supposed to exist, though not to be demonstrated to the eye, the subtler parts of the maternal blood—the serum and coagulable lymph, are absorbed into the vessels of the fœtus.

In the ruminating animal, as formerly shown, the placenta consists of an excrescence, and the vessels which ramify through it, in the same manner as the root in the soil. These excrescences, the cotyledons, as they may be called, secrete a fluid, in its sensible properties, like milk, and which, after the death of the animal, may be pressed out from their structure in large quantities, nor can there, I think, be a reasonable doubt that it is by the absorption and ramification of this lactiform fluid that the young animal is nourished, just as the plant is fed by the fluids which it absorbs from the soil. By the animal chemist, so far as I know, this secretion of the cotyledon has never been accurately analysed; if any one here present designs to devote his attention to animal chemistry, as it is called, to this fluid, so interesting in the generation of the ruminating animal, I would invite his attention; it is very desirable that we should know whether it be of the nature of milk or chylous, or whether it constitute some third humour, which has a composition of its own.

The chick in ovo also forms blood for itself from the yolk and white of the egg, which it absorbs, digests, and sanguifies. In the preparation exhibited, you may see the membranaceous tube which leads from the bag containing the yolk into the intestine. By this passage, it is, at least in great measure, that the aliment is transmitted. Now, to come down upon the point before us, much in the same manner as the chick and the calf are absorbing and sanguifying the fluids on which they feed,—the human fœtus, too, may be supposed to draw its nourishment from the blood which lies in the placentar cells, to be afterwards converted into blood by the action of its vascular system.

Besides, however, nourishing the fœtus, and operating as a sort of stomach or root, the placenta, too, is performing another office immediately essential to life, the placento-pulmonary, as it may be called, being equally discharged by the placenta, lungs, or gills. Of the lungs, we are taught that it is their office to throw off *carbon* from the body; and this admits of demonstration,—for if the air from your lungs be passed through lime-water, a precipitate is formed, consisting of the carbonate of lime, the carbon being derived from the blood, and passing off in the form of carbonic acid gas. Now, it may be imagined that the office of the placenta is that of separating carbon from the fœtal blood, in the same manner as the lungs do after the birth; but though I am not prepared to deny that the placenta may separate carbon in very minute quantities, I am well satisfied that carbon is not separated from it in abundance, in the proportionate quantities in which it is afterwards discharged at the lungs. The blood which is entering the lungs, is of a black livid tint; that which is leaving the lungs, is of a brilliant vermilion; and the difference arises, in great measure, from a difference in the quantity of carbon, the blood, leaving the lungs, being freed from much of the carbon, while that which enters the lungs, contains large quantities of it; but it is not so with blood that is leaving and entering the placenta. I have myself been at some pains to get the blood at the same time from the umbilical vein and arteries, and, in the experiments hitherto made, I have not been able to discover any manifest difference in the colour of the two; if difference existed at all, it consisted in a mere shade, and was not to be compared with that observable in the colour of the venous and arterial blood of the adult; and, from all this, we may, I think, venture to infer, that the blood which leaves and enters the placenta, must contain carbon in quantities nearly equal.

Again, we are taught, with respect to the lungs, (but this is more dubious than the former opinion,) that they are the organs which receive the matter of heat into the body, and which support the animal temperature; and we know that, generally, the heat of the internal part is from 98 to 100 degrees. There is, however, no reason to

believe that the placenta performs the office usually assigned to the lungs; because it is to be recollected, that the child is immersed in the liquor amnii, probably of the same warmth as itself, and, like the urine, of 98 or 100 degrees; and, not losing its heat, it does not require a supply of caloric from the placenta. Add to which the opinion of Crawford, that the lungs are enabled to absorb heat, by previously emitting carbon. Now, as it has been observed already, that the placenta separates no carbon, or, if any, an exceedingly sparing quantity,—provided the separation of carbon be necessary for the absorption of the heat,—this is an office which the placenta cannot perform.

It seems, then, the placenta is not discharging the two grand offices usually assigned to the lungs; it is not separating carbon largely, and it does not absorb caloric, for the support of the animal temperature; and yet it is certain this organ does perform an office immediately essential to life, and which is performed by the lungs themselves, of which you have a very simple proof:—If a child comes into the world under the crural presentation, (legs first,) there being a pressure on the chord, at a time when respiration cannot proceed, in consequence of the head and shoulders being lodged in the uterus, in the course of a few seconds the child is in a state of distress, in the course of a few minutes it is in danger, and, in the course of a few minutes more, it is dead; and all this, because the action of the placenta is pressed upon *when the lungs cannot play*; for, if the child comes into the world head first, and breathes, you may tie the cord, and cut away the placenta, as indeed is the custom, yet no inconvenience ensues; and hence we may draw this plain inference, that the lungs and the placenta are performing one common office, immediately essential to life. When it is performed by the placenta, it is not required of the lungs; and, when accomplished by the lungs, it is not required of the placenta.

And now comes on the question, What is the placento-pulmonary office? A question, which it is not in my power to answer. But I cannot forbear expressing my conviction, that there is some most important physiological discovery latent here. Whatever this office is, it is obvious that it is immediately connected with the principle of life; and it is very remarkable, that, though we believe ourselves to be acquainted with the main office of the lungs, we certainly are not. The main office is, I think, clearly this,—placento-pulmonary function. This function consists in neither of the offices which are usually assigned to the lungs; I mean the absorption of caloric, or the separation of carbon; but seems pretty evidently to consist in some third office, with which, however, we are at present unacquainted. How I envy, by anticipation, the man who is hereafter to succeed in its discovery!

Physiological Remarks on the Gravid Uterus.

Having said thus much then respecting the *anatomy* of the gravid uterus, I shall now proceed to make a few general remarks on its physiology, not entering at large, of course, into so diffuse a subject, but merely touching on those points most interesting, and some of which are not without their obstetric importance.

In order that my remarks may be the better understood upon this, it may be proper, perhaps, I should commence by observing, that the uterus, in the unimpregnated woman, varying in its bulk, is, on an average, about as large as a small pear flattened, and that it lies at the brim of the pelvis, with its fundus forward and its mouth backward, so that the one lies above and behind the symphysis pubis, and the other on the sacrum. Upon either side of this uterus, in the sides of the pelvis, the ovaries are situated, resembling the testicles somewhat in their form, and hence frequently denominated the *testes muliebris*, by the older anatomists. These ovaries consist of a covering of peritoneum, and proper coverings, which may be called the *tunica propria*, enclosing within it a cellular web, full of very minute vessels, and in this cellular web are embedded a number of vesicles, which may vary in number from ten to fifteen, or twenty, of unequal size, some of them being as large as mustard seeds only, and some as large as a full-grown pea, and more or less conspicuous in the ovaries of different women. For even in those cases where there is no reason to believe that the woman has been sterile, you must examine with care to see the vesicles distinctly, while in other cases these vesicles are so striking, that they are the parts which catch the eye as soon as the ovaries are laid open. These vessels, which are denominated the graafian, are the eggs of the human species. Again: stetching from the womb to the sides of the pelvis, we have the broad ligaments, which are formed by the peritoneum, which covers the uterus, partially in front, and completely behind, and which being thus disposed upon the womb, form two layers, one in front and the other posteriorly, stretching from the sides of the uterus to the sides of the pelvis. In the superior parts of these broad ligaments, are situated what are called the fallopian tubes, which are, in fact, the oviducts of women, somewhat vermicular in their course, for they do not run in a direct line; very small

where they enter into the uterus, in so much that a large bristle could scarcely be passed through the orifice; larger where they open near the ovary, for there a large probe might be inserted; and immediately within the orifice, which is surrounded by a muscular fringe, or ruffle, and which is called the *morsus diaboli*, dilated into a sort of receptacle, in which the first rudiments of the fœtus may perhaps lodge.

Stretching from the womb to the external organs, is the canal called the vagina, lying on the rectum posteriorly, and the bladder and urethra in front; this canal varying much in its capacity, being large in women who have borne many children, and small in virgins, but being of a form and capacity evidently comformable to the make of the male organ. Observe, carefully, these illustrative preparations.

Impregnation.—When impregnation takes place, for I now proceed to give you a short account of it, one or more of the eggs, or grüfian vesicles, becomes the subject of the conceptive actions, and supplies of nourishment are poured into it from the surrounding parts, and the eggs enlarge in their size, and they project beyond the surface of the ovary, so as to form the mammillary process; and all around the vesicles, which are thus enlarging the ovum, become more vascular than it was before. About this time the mammillary process, projecting like a nipple, is seized by the muscular fringes of the fallopian tubes, something in the same manner as the nipple itself is seized by the infant when at suck. The mammillary process lying in this manner in the orifice of the fallopian tube, it at length breaks open by ulceration, and discharges its contents in this canal, after which the rudiments, by little and little, under a sort of peristaltic action, are conveyed from the tube to the uterus, to be deposited there as in a nest,—for the uterus of the mammalia has some analogies with the nest of a bird, which, in some pointed particulars, it resembles. Now this transfer of the rudiments from the ovary to the uterus, constitutes what, in the proper acceptation of the term, may be denominated its conception, or what, in birds, we should call the laying of the egg. Dr. Haighton found, that if, in the rabbit, he divided the fallopian tube more than eight-and-forty hours after its communication with the male, he did not, in so doing, interrupt the process of generation; but if he divided the tube within 10, 20, or 30 hours, or even later than this, then the process of generation was interrupted, the rudiments never afterwards making their appearance in the womb; and therefore he inferred, that in the rabbit the process of conception, or the laying of the egg, is accomplished in eight-and-forty hours, but not sooner.

It has often been asked, what is the term that is required for the completion of human conception? but this is a question to which it is not easy to give a precise and satisfactory answer. I thoroughly agree with those who believe that it is of very early completion, say within the fortnight, or perhaps sooner. A fœtus of five or six weeks is thoroughly formed, and as large as a large blue fly. How young, therefore, must its rudiments be when they pass in an unformed state through the uterine orifice of the fallopian tube, which, as this preparation proves, is scarcely large enough to admit a bristle.

I here show you the uterus, and a portion of the vagina annexed to it; you may see the broad ligaments stretching to the sides of the glass, and you may see the fallopian tubes, or oviducts, above which is the muscular ruffle, or fringe, which lays hold of the mammillary process.

Here is a preparation of the ovary; its interior is exposed, and the eggs, which are nestling there, are conspicuously observable.

I here show you the mammillary process projecting, and in this preparation laid open, its contents being escaped, so that a small cavity has been formed in the ovary, and this cavity is filled up with a yellowish material brighter in some than in others, the whole constituting what is celebrated among anatomists under the appellation of the *corpus luteum*.

The vesicle in this preparation, after discharging its contents, is again partially filled with the yellow material; and in the preparation which follows, the closure of the cavity has been almost completed.

Where there are two fœtuses, two vesicles are in general excited, and two lutea become formed; in the woman from which this was taken, there were twins, and you may observe a corpus luteum in each ovary. This is not invariably the case, for, as a single egg may sometimes contain two chicks, so a single vesicle may, in some cases, contain two fœtuses. The woman from whom these ovaries were taken, conceived of three children, and you may see two vesicles in one ovary, and one in the other; observe, at the same time, the high vascularity of the surrounding ovary.

But to proceed:—Much dispute has been raised respecting a question of some little speculative interest, I mean as to the form in which the rudiments come down into the womb, some contending with Haighton, that they descend in a loose amorphous state; and others, as Cruikshanks, that they leave the ovary, and pass the tube under the form of a small egg. Dr. Haighton examined a great many rabbits which had been recently impregnated, making his ob-

servations at different intervals after conception, but he never found in any one instance, until the process of epigenesis was begun in the uterus, that the rudiments exhibited any definite form, so that after instituting many observations of this sort, (and he was a very accurate observer,) he became of opinion, that it was not the vesicle of De Gräfe that was *detached* in the form of an egg, to pass into the uterus, but that the vesicle opening, discharged its contents into the tube, as an egg might do, if the shell were freely broken. Cruikshanks, however, imagined, that the rudiments passed along into the womb in the form of an ovum, of rounded or oval shape, but in order to prove this, he laid open the tube, and applied distilled vinegar.

Now Haighton used to observe tartly and forcibly enough, that *nature* did not apply distilled vinegar in her operations; and the observation was as just as it was keen; for even supposing the rudiments came down into the womb without any defined shape, of course the application of the vinegar might be expected to coagulate the serum, and to cause it to assume something of a defined shape immediately. On the whole, therefore, I assent to the opinion of my valued relative, and believe with him that, in conception, the ovum comes down into the uterus, not enclosed in a membranous cyst, but in a loose and disengaged condition; and this opinion is supported by the inference to be drawn from the smallness of the uterine orifice of the tubes, evidently much too minute in its capacity, to allow the vesicle to pass in its oviform condition.

I have sometimes thought that, as in birds, the oviducts are superadding to the yolks, derived from the ovaries certain parts, which render them more perfect for generation, for instance,—the whites and shells. It may not be impossible that the fallopian tubes may add something too; and this is more probable: first, because we find the inner sides of the fallopian tubes vascular in a high degree; and, secondly, because their inner membrane is folded longitudinally, as if nature intended to spread them out for the purposes of secretion. However, granting its existence, we have clear proof, that this superaddition is not essential to generation, for extra-uterine fœtuses may form in the ovary, and, in these cases, the rudiments never get into the fallopian tube at all,—and can, therefore, derive nothing from it.

Here is one of the fallopian tubes laid open; it is vascular in a high degree, and its folds are lying longitudinally; it is this structure that induces me to think, that the tube is a secreting organ, as well as an organ of transmission.

Here is a specimen, and a fine one, of the morsus diaboli, the fimbriated extremity of the fallopian tube, observe its position near the ovary.

FOREIGN DEPARTMENT.

M. BROUSSAIS.

Dr. Miquel, the editor of the *Gazette de Santé*, has lately published a pamphlet against M. Broussais, which, amongst other interesting communications, contains the following comparative table on the mortality in the Hospital of Val de Grace, under its different physicians:—

In the year	M. Vaidy	M. Desgenettes	M. Pierre	M. Broussais
1815	lost 1 out of 20½	——	1 out of 16	1 out of 11
1816	— 1 27	1 78	1 193	1 19
1817	— 1 14	1 14	1 167	1 16
1818	— 1 25	1 12	1 27	1 14
1819	— 1 .... 22⅔	1 .... 21½	1 16	1 .... 8½

This contrasts very strangely with the bombastic manner in which we are accustomed to hear M. Broussais and his followers speak of the "*Doctrine Physiologique.*"

TERMINATION OF THE RETINA IN THE HUMAN EYE.*

It has very often been discussed, where the retina terminates anteriorly, and, as far as we know, the opinions of anatomists as to this point are not yet settled. Dr. Schneider, of the University of Munich, has lately, by very accurate researches, endeavoured to determine this question. According to him, the following are the different opinions on the subject:—

1. The retina reaches no further than the middle of the vitreous humour.—Fallopius and Vesalius.

2. It terminates at the exterior margin of the processus ciliares.—Meckel, Sömmering, Wrisberg, Zinn, Rudolphi, Velpeau, Home, Jacob, Paullucci.

3. It extends to the circumference of the lens, where it is inserted in the cap-

* Das Ende der Nervenhaut im menschl. Auge. Von Dr. Schneider, Prosect. an der Univers. zu Münichen.

sule.—Ferrein, Haller, Lieutaud, Monro, Winslow.

4. It is continued into the processus ciliares.

5. Having reached the external margin of zone of Zinn, it forms a defined edge, from which it extends, as a very delicate membrane, to the margin of the lens.—Baerens, Walter, Doellinger, Hesselbach.

According to M. Schneider, it proceeds from the external margin of the corpus ciliare, where it was generally supposed to terminate, to the lens on the greatest circumference of which it ends, by a free margin, and without any firm attachment to the capsule. This continuation of the retina lies between the zone of Zinn and the corpus ciliare; it appears as a very delicate, thin, medullary membrane, somewhat thickened at its internal free margin. It is covered by the pigmentum nigrum, which is most copious on the external portion, but gradually decreases anteriorly and interiorly, so that the free margin of the retina is not covered by it. At the distance of about one-eighteenth of an inch from the circumference of the lens, the retina increases in thickness, is very white, and of a folded structure, in which the separate folds, from 70 to 75 in number, are placed at regular intervals. The internal margin of this folded ring adheres to the capsule. Under the microscope, the termination of these folds anteriorly appear as more or less coniform bodies placed in different directions, and very similar to the nervous papillæ of the tongue.

ON THE ORGANIC ALTERATIONS IN THE INTERIOR OF THE EYE AFTER THE RECLINATION OF THE LENS.*

By Dr. W. Sömmering.

The author of this treatise had opportunities of examining eight eyes in which this operation had been performed. The reclinated lens was generally found immoveable on the exterior and inferior portion of the ciliary processes, at a greater or less distance from the iris; it was, except in one case, without its capsule, small, and, as it seemed, absorbed, all but the harder nucleus; of a greyish white, or yellowish brown amber colour, and of an irregular shape; its size appeared to differ according to the length of time which had elapsed after the operation. In two instances it was completely absorbed, and the only remaining trace of it was a slight impression in the margin of the ciliary processes; in one case it seemed unchanged, being covered by the capsule, to which two very fine blood-vessels were seen running from the ciliary processes. It was observed, that, when the eye had for some time been lying in alcohol, those parts with which the lens had been in more or less close contact, invariably underwent a very peculiar alteration: the vitreous humour, hyaloid membrane, and retina, were, in these places, more or less turbid; the hyaloid membrane was thickened, the retina wrinkled, and, in one instance, adhering to the choroid; evidently the consequences of a slight inflammation, produced by the pressure of the lens. The capsule had, except in the one case mentioned above, retained its natural situation, and its connexion with the zonula Zinnii; it had been lacerated in the operation in the middle or lower part, and was perfectly transparent; after having for some time been lying in very strong alcohol, it appeared as a yellowish ring near, but unconnected with, the posterior surface of the iris; the internal margin was free, irregular and indented, and partly covered the pupil; in one instance only, a very delicate plastic membrane had been thrown out from it. It was, on the whole, very considerably thickened, and of a gelatinous consistence; being, however, perfectly transparent, this thickening of the capsule cannot be considered as the result of an inflammatory state, and we think the author is right in supposing it to be formed by the secretory action of the capsule, and the subsequent crystallisation of the secretion; it is, as it were, the rudiment of a new lens. In two cases, the vitreous humour was very liquid; the cicatrix of the sclerotica could hardly be discovered. In one case of congenital cataract, where the operation had failed, the retina was found separated from the choroid by an intermediate stratum of fluid.

M. Sömmering is of opinion, that the formation and nutrition of the lens depend on the continual secretion and absorption of the liquor Morgagni by the capsule, but that there exists no organic connexion between the two organs, and that the formation of the lens out of the humour Morgagni, is a real crystallisation. (Such was also the opinion of Haller and of Petit; but Albinus saw the injected vessels of the capsule continued into the lens, and Dr. Jacob's recent researches seem to confirm this observation.) The capsule is closely connected with the zone of Zinn, and, through the latter, communicates with the corona ciliaris, from which it receives the nutrient vessels of the lens.

The different degrees of perfection with which the patients see after the operation, depends not on the more or less transparent state of the interior parts of the eye, but

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* Beobacht. üb die organ. Veränder. im Auge nach Staar Operationen. Von W. Sömmering, Frankfurt am Main.

on the irregular shape of the refracting organs. The cataracta secundaria is the effect of a traumatic inflammation of the capsule; sometimes even an effusion takes place between the edges of the capsule, but it is hardly ever the effect of exudation from the uvea, as M. Schmidt maintained. The capsule itself is never absorbed.

ON FUNGUS MEDULLARIS OF THE EYE.*

By B. Panizza.

This treatise contains two very interesting cases of fungoid disease, of which we a condensed report.

In a girl, seven years old, the fungus had been formed in the right eye, in consequence of internal ophthalmy; vision was completely destroyed from the beginning; the pupil was dilated and immoveable, behind it a yellow irregular spot was seen, with some gorged vessels in its centre, its exterior and inferior portion was a little prominent, and of a tuberculous appearance. In all other respects the eye seemed perfectly healthy. After three months the yellow spot became of a darker colour, enlarged, nodose, and beset with more varicose vessels. The extirpation of the eye being objected to, the disease followed its regular course; the eye burst, the fungus protruded, and rapidly grew to an enormous size; large ulcerations formed, frequent hæmorrhages ensued, &c., and the little patient died, after having suffered sixteen months. On examination, the glands of the neck and the parotid were found diseased; that portion of the dura mater which covers the parietal bones, as well as the greater part of the right anterior and middle lobes of the brain, had degenerated into a fungous mass; the optic nerve, the ophthalmic branch of the fifth pair, and the third pair, were also imbedded in a fungous substance. The optic nerve terminated anteriorly in a hard ligamentous intumescence, of a bulbous form. In the orbit, all the organs were transformed into one confused mass.

The second case was that of a child twenty months of age; the fungus was in the left eye; it had likewise formed after internal ophthalmy, and the symptoms were exactly the same as in the foregoing case. The eye was extirpated by Dr. Donegana, about seven weeks after the first symptoms had been observed. Professor Panizza examined the eye after the operation; it was not enlarged, but harder than natural; the optic nerve, cornea, iris, and lens, were healthy; the lens having been removed, the yellow spot was found to be seated in the depression in which the posterior half of the lens lies, although, before the removal of the lens, it appeared as if it were more deeply-seated. It consisted of three separate bright-yellow and prominent masses, of a soft and fungous consistence. On removing the choroid, the whole of the vitreous humour was found to consist of this yellow mass; being punctured, it emitted a bright yellow, viscous, saline fluid, which was coagulated by alcohol; the optic nerve was inserted into this yellow mass; the retina was wrinkled, contracted, and appeared to pass through it to the anterior fossa, where it formed the three above-mentioned prominencies. The choroid was healthy.

Four years after the operation, the little patient was in perfect health. As far as we know, this is the only instance upon record, where the extirpation of the fungus medullaris of the eye, has not been followed by a fatal termination from a relapse, or a continuation of the disease to the brain and its membranes.

* Sul Fungo Midollare dell'occhio. Pavia, Fol.

CENTRAL POINT OF THE NERVOUS SYSTEM.—DIVISION OF THE NERVES, AND SUBSEQUENT RE-UNION OF THEIR ENDS.

M. Flourens has recently endeavoured to determine the limits of the central and vital point of the nervous system. From various experiments, he infers that this point begins at the origin of the eighth pair, and extends no further than one-fifth or one-sixth part of an inch towards the medulla oblongata. On dividing the brain above this point it is deprived of life, but the spinal chord continues to live; on dividing the spinal chord below it, the reverse takes place.

In another memoir, M. Flourens gives the result of his experiments on the division of the nerves, and the subsequent re-union of their ends. In most cases, the re-union was complete, and by it the nerves recovered even their sensibility and influence on motion. M. Flourens being desirous of knowing whether the ends of two different nerves would unite, having brought them into close contact, kept them in this situation, and found that, in all the cases, complete union took place; in some of them the function of the nerves was restored; in others, it remained imperfect; but, in all, the irritation of the lower was communicated to the upper nerve, so that we can hardly doubt of the formation of real nervous substance between the divided ends.

ON THE APPEARANCE OF THE BLOOD OF ANIMALS UNDER DIFFERENT STATES OF EXCITEMENT.

By Mr. RICHARD VINES, *Veterinary Surgeon; Mr. Coleman's Assistant at the Veterinary College.*

HAVING stated in a former communication * that the blood of the horse or ass, when in perfect health, after being well fed and moderately exercised, assumed a bright red colour; and the blood, which was then abstracted, coagulated quickly into a solid uniform mass, without any separation of the red part; and on the contrary if the same animal were exposed to a low degree of temperature, and allowed only a small quantity of food, that the blood under those circumstances gradually assumed a darker colour, coagulated slower, and during its coagulation separated into two parts, a superior white or straw-colour, and an inferior dark red, thus constituting what is commonly called buffy, or inflamed blood, and that in proportion to the degree or intensity of cold, and the deprivation from food, so the blood assumed this buffy appearance; and again in proportion to the increased strength of the animal, when supplied with a due quantity of food, and placed in a more congenial temperature, that the blood recovered its original state.

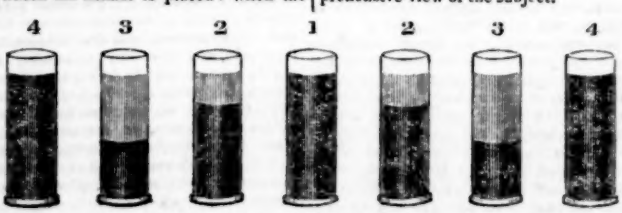
I likewise stated that the blood assumed this buffy appearance in healthy horses from drawing large quantities at short intervals, and also that any cause that debilitated the system would likewise render the blood of this appearance.

On further investigation, and from numerous repeated experiments and observations, I have clearly ascertained and proved, that the blood assumes different appearances, varying according to the circumstances under which the animal is placed: when the animal is in perfect health, and moderately excited, the colour of the blood will become brighter, and the coagulating property will be increased; but, on the contrary, that in both, when under great (as well as diminished) excitement, the colour and coagulating property will be found gradually to diminish.

Under the former circumstances both the venous and arterial blood assume a brighter colour, coagulation takes place quicker, and the consistence will be found to be firmer, without any separation of the red part, and this appearance will be seen whether a small or large quantity be taken; but if the exertion be carried to a great excess, or if the animal breathe an impure atmosphere, or be exposed to a low degree of temperature, and at the same time not allowed food, or to be exercised, the venous and arterial blood will then gradually appear of a darker colour, coagulation will be slower and weaker, and during the coagulation the red part will separate, at first in a slight degree; but this appearance is only to be observed on drawing a small quantity, but afterwards to a much greater extent, by taking a larger portion; but in the advanced stages, and as the animal becomes more exhausted, it then gradually fails to assume the buffy appearance, from its coagulating property being too far diminished.

From these facts it becomes evident, as I have previously stated, that the venous and arterial blood assumes different appearances, varying according to the circumstances under which the animal is placed; thus, while in health, and under moderate excitement, its colour and coagulating property gradually increases; but, on the contrary, both when under great as well as diminished excitement, its colour and coagulation will be gradually diminished.

The following table will give a more comprehensive view of the subject.



The middle portion, *Fig.* 1, is intended to represent the appearance of the blood, either venous or arterial, under moderate excitement, coagulated into an uniform firm mass, without any separation.

The three lateral portions, on each side, are intended to represent the colours and coagulating property, diminishing those on the right side from too great excitement, and those on the left from diminished excitement.

Fig. 2, on each side, show the blood darker in colour than *Fig.* 1; and during the coagulation to have separated into two parts; a

* LANCET, Number 195, Vol. XII.

superior, which is either white or straw-coloured, and an inferior, or red part.

The two next portions, *Fig.* 3, likewise show the blood coagulated, but still darker in colour, with a larger portion of the white or straw-coloured part, and a smaller of the inferior or red.

The two outside portions, *Fig.* 4, represent the blood of a darker colour than the last, but without any separation of the parts, owing to its weak coagulation.

From this it appears evident that the remote causes which increase the colour and coagulating property of the blood are pure air, of a moderate temperature, good food, and moderate exercise; but, on the contrary, those under which it diminishes are violent or long-continued exertion, severe pain, increased temperature, or any of these causes in combination with high feeding: this is very frequently to be observed in the spring of the year, and summer months, while the thermometer is high; when it is very common to find inflammation of the lungs, eyes, and other inflammatory diseases from too great excitement of the system; again, other remote causes also render the blood in this state, by diminishing the action of the various organs of the body, as impure air, long exposure to wet or cold, without food or exercise;* this we find to be the case in the autumn and winter, while the thermometer is low.

It therefore appears that while the causes which support the functions of the different organs of the body are duly and moderately applied, the colour and coagulating property of the blood gradually increase; but, on the contrary, if these causes are gradually withdrawn, or carried to too great an excess, then the colour and coagulating property will gradually diminish; thus it will be found, that as the animal increases in strength, the blood will coagulate stronger and quicker, from containing a larger portion of animal matter; but as the animal diminishes in strength, and while under great or diminished excitement, the blood coagulates slower and weaker from containing a smaller portion; its quick coagulation depends on the quantity of animal matter it contains; the blood of strong subjects is always greater in weight, and coagulates stronger and quicker than that of weak ones; thus, as the animal increases in strength, while in health, and under moderate excitement, the blood coagulates stronger and quicker from containing a larger portion of animal matter; and again, as the animal diminishes in strength, as while under great or diminished excitement, the blood gradually coagulates slower and weaker, from containing a much smaller portion.

This white, or buffy part, commonly called self-coagulable lymph or fibrin, may therefore be considered as the base of the blood of all animals; it assumes different colours, and possesses coagulating properties, varying in animals, and in different parts of the body of the same animal; in the strong parts it appears red, from possessing a high degree of vital power, while in the weak or finer parts it appears white, from possessing a much lower degree of vitality; in strong subjects, and in the strong parts of the body, it coagulates strongly and quickly from containing a large portion of animal matter; hence it has received the name of fibrin from a supposed resemblance to muscular or fibrous texture; but on the contrary, in weak subjects, and in the weak and finer parts of the body, its coagulation is much slower and weaker from its containing only a much smaller portion. It also assumes different appearances, varying according to the circumstances under which the animal is placed. When in perfect health, and moderately excited, it appears of a bright red colour, and coagulates without any separation; in this state, we may consider it as possessing the highest degree of vital power; but, on the contrary, that is from too great as well as from diminished excitement, in consequence of its vitality being diminished, it then appears darker in colour; coagulation becomes slower and weaker, at first in a slight degree, but afterwards to a much greater extent.

I therefore deny the hypothesis of the blood being a compound fluid, while circulating in the living body, and of the lymph, red globules, and serum, but consider it as live animal matter, capable of assuming either a fluid or solid form; and that, while in the state of a fluid, it possesses a higher degree of vital power than when in a solid state; that it assumes different colours, and possesses various degrees of solidity, varying in animals, and in different parts of the same animal, which depends upon the quantity of animal matter it contains previous to its coagulating, or assuming the solid state. I consider its base as originally white, and that it derives its colour and coagulating properties from the combination of atmospheric air, when circulating through the lungs; this appears from the arterial blood being always greater in weight, and coagulating firmer and quicker than either the lymph or chyle; and I consider that its different colours indicate its various degrees of vitality; for, in the strong parts of the body, it appears red, from possessing a high degree of vital power; while, in the weak or

* The blood has likewise the same appearance when the horse is under the influence of digitalis.

finer parts, it is white, from having only a much lower degree of vitality.

The lacteal and lymphatic fluids may, therefore, be considered as venous blood. This appears from their assuming different colours, and possessing coagulating properties, varying according to the different states of the animal. In strong and healthy horses, if destroyed while in perfect health, and under moderate excitement, the lymphatic fluid assumes a white or straw-colour in those parts of the lymphatic system situated near the circumference and centre of the circulation; but, on the contrary, in many of those which are destroyed when under great as well as diminished excitement, it commonly assumes the same character of dark venous blood in those parts of the lymphatic system, situated nearest the centre of the circulation as the thoracic duct, and the second order of the lacteals and lymphatics. This we find from the functions of digestion being suspended, from severe pain produced from open joints, punctures in the feet, &c., also by exposure to severe cold without food.

Royal Veterinary College,
Oct. 15, 1828.

ON THE EXTRACTION OF THE TEETH.

By S. J. Stratford, *Surgeon of Worcester.*

The extraction of the teeth has, by many surgeons, been considered a contemptible occupation, and unworthy the notice of a well-educated practitioner; it is, consequently, now practised by the regular dentist, or abandoned to men who have not had the benefit of a regular surgical education. I feel, however, that whatever will tend to the relief of pain should not be below the surgeon's consideration, while the principles of the operation ought to be perfectly understood, to do it with correctness and facility. I believe, however, that many practitioners have abandoned its employment, more from its difficulties, and the unsatisfactory nature of their attempts, than from any ideas of the disreputable feelings attached to it. These difficulties, I am convinced, have originated from the want of due consideration of the nature of the diseased condition of the tooth, or of the variety and action of the instruments they have employed; but when the action of the one is properly applied to the nature of the other, all the difficulties vanish; and here I cannot but reprobate the employment of the same instrument in such various and different diseased condition of the teeth; it shows a want of reflection, and mechanical knowledge, which should not evince itself in the present day.

I will not now venture to speculate on the nature of caries, or the mode of its production, but consider the amount of disease under three heads:—1. Simple caries; 2. Extensive caries; 3. Death of the tooth.

1. *Simple Caries.*—Under this head I would consider that extent of disease which has exposed the lining membrane of the tooth to the degree, that no operation of the dentist, such as stopping, &c., could effectually relieve the pain, or stop the progress of the caries, where, indeed, no considerable portion of crown has become implicated.

2. *Extensive Caries* I would apply to that amount of disease which has destroyed the crown, or all the bony part, leaving but a thin shell of enamel.

3. *Death of the Tooth.*—Here I would be understood to mean, the dead stumps which have remained after the crown was broken off, or destroyed, by caries; they are generally level with the gum, are of a dark colour, and cause irritation and inflammation by their presence to the neighbouring parts; they have long ceased to be alive, and have now lost that firm connexion with the socket which they possessed before that vitality was destroyed.

The nature and action of the instruments should particularly enter into our consideration. A great variety of instruments have been recommended for the extraction of teeth; each operator has boasted some new invention, to which he has ascribed particular excellence; but that they have not possessed the merits ascribed to them, is obvious from their very limited employment: many are of a complicated nature, and difficult of application. I am, however, convinced, that the more simple their construction, the more easy will be their employment, and the more obvious their effects. The instruments which I have found most applicable to the extraction of the teeth are—the forceps, the key, and the punch, the use of each of which are indicated by the condition, or position, of the tooth.

The forceps can be employed only in the case of simple caries, where there is a considerable portion of the bony material of the tooth remaining, constituting a degree of firmness which will resist the grasp of the forceps, and will not crumble under it. The forceps should be of sufficient size to afford an easy purchase to the hand, while they are made so that the inner surface of the blade fit exactly to the crown and sides of the tooth; for this reason, the operator should be possessed of a considerable variety, so as to fit all different gradations of size. When, then, we have chosen the pair of forceps that fit exactly to the tooth, we must take care to embrace the neck, for

if we merely take hold of the crown, the forceps are liable to slip. Having taken a firm hold, we give the forceps an alternate lateral motion, also tending to the perpendicular; by the first we separate the adhesion of the tooth to the socket, and by the latter we draw it from its position. The forceps are most applicable to the incisors, or cuspidate, but, if they have a sufficient curve in their blade, they may also be employed to extract the bicuspid and molar teeth. The curve of the forceps must vary with the positive position of the tooth, so that the extremity of the blade fits in a perpendicular direction to the crown of the tooth, when precisely the same movements must be used, and the extraction of the tooth will generally follow. For the sake of convenience to the operator, the forceps would generally seem most applicable to the teeth of the upper jaw; they may, however, be employed to the back teeth of the lower with nearly the same facility. I apprehend, that the reason the forceps have occasionally parted is more from the make of the instrument than any fault in their application, for when the blade is made too hollow, so that but the extremities of the blades touch the tooth at two opposite points, which are often too sharp, the grasp of the operator is liable to cut the crown from the body of the tooth, instead of extracting it; but when due attention is given to their application this can never occur.

The use of the key is demanded when there is such extensive caries that there is no purchase for the forceps, or when we find it more convenient, as in the lower jaw. The manner of placing the key must depend upon the extent of the caries, and the position of the tooth. When we can find sufficient of the tooth remaining on the inner side, to form a purchase for the claw, it must be placed upon it, and the fulcrum on the opposite side, so as to turn the tooth outwardly; but when a better hold is on the outside, the tooth may be turned towards the inside. Sometimes the tooth, instead of being perpendicular, has a lateral direction, especially the back teeth; in that case we should always apply the fulcrum on the side to which it inclines, and the claw on the opposite, for reasons which will be presently noticed. The action of this instrument is that of a lever, and justly to accomplish its action it requires to be judiciously applied. The fulcrum should be flat, and must be applied to the gum, opposite to the alveolary process, while the claw should be of sufficient length, that it may easily reach to the opposite side of the tooth, its extremity being placed upon the neck, exactly opposite to the upper part of the fulcrum, and these must be kept precisely in a horizontal direction. We then turn the handle of the instrument gently and steadily, taking care that the claw does not slip from its hold. This acting on the fulcrum will cause the claw to raise the tooth from its socket; but when the tooth has a lateral direction, if we apply the claw on the side to which it inclines, we cannot raise it in a perpendicular direction, in consequence of the inclination of the roots of the tooth, and would rather force the tooth down into the socket, if the power we employed did not break the crown from the body, while the thicker and stronger nature of the alveolary process in this instance might form some impediment to its extraction. In every instance in which the key is used, the alveolary process must yield, in some degree, at particular points. The power applied to the upper part of the tooth must compress the superior part next the fulcrum of the instrument, while the fangs, or roots, of the tooth will press upon the lower part on the opposite side; hence the reason that these processes are so frequently broken. This, however, is an accident of little moment, for the alveolary processes are sure to be absorbed as soon as the tooth is totally removed.

The employment of the punch is demanded in the extraction of old dead stumps, which, in consequence of a loss of vitality, are separated from all intimate vascular connexion with the living apparatus, and are even commenced to be removed by absorption. The manner of applying this instrument, is to introduce it between the stump and alveolary process, and to poise the latter from its socket. The best plan is, first to lance the gum immediately above the alveolary process, and then to pass the punch down firmly between these parts, and when we have insinuated it a sufficient distance, we must turn the handle of the punch from the perpendicular direction to a right angle, when we easily raise the tooth from its position; we must be careful to place a finger on the opposite side of the tooth, guarded by some substance, so as to receive the instrument should it slip; this, however, very seldom happens if proper care has been taken to introduce it a sufficient depth before we make the turn. The point of the punch need not be made very sharp, but should be wedge-shaped, so as easily to be insinuated between the stump and alveolary process. Care is particularly necessary not to attempt its use but in those cases to which it is applicable; in these it requires but little force; but if it is used before the tooth is dead, and separated from its connexions with the alveolary process, we may do very considerable injury from the power it will be necessary to use, in our attempts to extract it. The extremity of the punch may be introduced with sufficient facility on either side of the

stump, while it may be used equally on the upper and lower jaw.

These are the principles which have guided me in the extraction of the teeth, and when followed up I have found them to be perfectly successful, while, by attention to them, I conceive I have been enabled not only to remove the tooth with facility, but to save my unfortunate patient a considerable amount of pain.

MEDICAL BIGOTRY IN IRELAND.

THERE is something monstrously anomalous in the medical, as well as in the political affairs of Ireland. Religion, in that country, is an insuperable bar to all promotion, in civil as well as medical appointments. The exclusion of Dr. Tuomy from the professorship of the practice of medicine, in the Dublin School of Medicine, is only in strict unison with the bigotry which has always distinguished the College of Physicians in that country. During the formidable epidemic fever of 1816, which ravaged the whole island, there was not a physician in Dublin so successful in the treatment of the typhus, as it was called, as Dr. Tuomy. His deep research into the writings of the native physicians, during the preceding epidemics of the most remote periods, and his attentive and faithful observation, and unsophisticated experience, enabled him to adopt a practice very different from that of many of his contemporaries. He remained a close observer of the fanatical reveries of many of his rivals, who became very generally insane with the Sangrado practice then revived, which, by the way, had been extensively employed by Sydenham, and by the Irish physicians of his day, in former epidemics. While many of the medical officers of the large fever hospitals of Dublin, were depleting every emaciated creature that famine consigned to their management; Dr. Tuomy never adopted depletion in this wholesale manner, but contented himself with local detraction of blood by leeches or arteriotomy. In this way he relieved the brain, and then employed cold to the head freely, while he exhibited mercurial and vegetable cathartics to relieve the abdominal viscera, and then diaphoretics. When postration set in, he exhibited dietetical, as well as medicinal, stimuli, and freely employed an old celebrated remedy in typhus—a combination of yeast and wort, with wine, porter, &c. His success was most brilliant, for while hundreds of victims had been immolated at the shrine of Sangrado, scarcely a single patient lost his life in the Clinical Hospital, under Dr. Tuomy. But Dr. Tuomy worshipped his Creator in the ancient national manner, and here was the "head and front of his offending." It was therefore piously resolved, that the septennial election of professors should be revived, and the Doctor excluded. In fact it is the established usage, that the professors are never re-elected; but the law gave the College the power of so doing, if their high mightinesses thought proper. The other professors of the reformed and more modern religion were left undisturbed, though many of the worldly given of the profession considered that neither its honour or dignity was promoted, by one "of the elect" of the professors making pious excursions to villages adjacent to the Irish capital, in the capacity of methodist preacher. Yet such a man, without any private practice, is retained as a clinical professor, while men of practical experience are excluded. But this is only in accordance with the system that has always distinguished the School of Medicine. The professors content themselves with reading old fashioned and obsolete lectures, and seem to close their eyes and ears to all modern improvements, and hence the vast superiority of the lectures in London and Edinburgh. Here then is one of the chief causes that induces Irish students to repair to those places, where they shall derive the best instruction. Another great defect in the Dublin School of Medicine is this—that they cannot confer medical degrees. Thus, after all examinations for testimonials (which are similar to those in Edinburgh) shall have been complied with, the candidate receives a *testimonium*, which is a certificate on a sheet of paper, that he is qualified to practise medicine, in the opinion of the professors. If the holder of this certificate become a medical witness, the first question he will have to answer is, whether he is a physician or surgeon? He cannot say he is one or the other on the authority of this testimony; and here is another cause which induces students to repair to schools in which they can obtain the doctor's degree. In the Dublin University, the degree of M.D. is not conferred sooner than twelve years, as in the old-fashioned sisters of Oxford and Cambridge.

The by-laws of the Irish College of Surgeons are equally anile, for no person can become a member of that wise corporation, unless he shall have been apprenticed to some one of the junta, who monopolise the management of the College. The pupil is to pay 150*l.* as an out-door, and from 300*l.* to 500*l.* as an in-door apprentice, and to be bound for five years, during four of which, he may indulge himself in the manly sports of the field, or the mazes of the drawing-room, and not exchange two sentences with

his *quasi* master during the period. Some of the masters do not know their own apprentices, when once the fee is pocketed; and no member of the College, on pain of censure or expulsion, shall meet a London or Edinburgh surgeon in consultation; nay, Dr. Grattan informs us, in his remarks on the profession in Ireland, "Not even Sir Astley Cooper, or Mr. Abernethy, could be met by a member of the Irish College of Surgeons in consultation." The members of the London, Edinburgh, and Paris Colleges of Surgeons, are the most numerous in Ireland, solely from the gross and ridiculous regulations of the Irish College, and are subjected to this humiliation, and are excluded by Act of Parliament from being surgeons to county hospitals; the emoluments of which vary from 1 to 500*l.* a year. By this management of the College, aided by the system of the School of Medicine, 200 students are exiled from Dublin annually; and, supposing, on an average, each to expend 100*l.* a year, which is under the mark, the sum of 20,000*l.* a year is removed from the Irish capital; a trifle, to be sure, when we consider the flourishing and opulent state of that metropolis. But a word on the exclusion of Catholic medical men, from lucrative professional appointments. They are excluded from the numerous situations under the government. We cannot find the names of any Catholic among the physicians, surgeons, druggists, or apothecaries, attached to the military and naval departments. The offices of physician-general, surgeon-general, directors and inspectors of military hospitals, the members of the Board of health, the six professors of the school of medicine, the nine lecturers at the school of surgery of the College; the governor, deputy governor, and thirteen directors of the Apothecaries' Hall; the professors of chemistry, natural history, mineralogy, agriculture, botany, veterinary art, in the Royal Dublin Society, each worth 200*l.* a year; the state physicians, surgeons, and apothecaries; all the medical situations connected with the Military Hospital, Phœnix Park, and with the Royal Hospital at Kilmainham, (the Irish Chelsea College,) the Foundling Hospital, the sailors' and soldiers' schools or hospitals, the numerous orphan schools, the Hospital for Incurables, Stevens's, Swift's, the Richmond, Jervis Street, Mercer's, Whitworth, Talbot, Wellesley, and Lying-in Hospitals; the chief medical officer of the last, worth 2000*l.* a year; the Cork Street Fever Hospital, the Lock Hospital, the Custom House, Post Office, prisons, dispensaries in Dublin; the thirty-two county infirmaries, fever hospitals, 300 dispensaries; county and city prisons, lunatic asylums, are almost all filled by Protestants. In fact, it would appear, that there is no Catholic physician, surgeon, or apothecary in Ireland, although three-fourths of the profession are Catholic. The statement is a fact, if we except a few country dispensaries, which are worth about 30*l.* a year each. And even Catholics would be excluded from dispensaries, but the majority of subscribers are of the excluded persuasion. But all the public emolumentary situations are virtually closed against them. Such are the baneful effects of that iniquitous and barbarous penal code, which makes men aliens in their native country. Happy, magnanimous, and enlightened England! where religious worship is no longer an impediment to talent and promotion, except to Catholics.

In every country in Europe and America, England and Ireland excepted, men of whatever religious persuasion may fill all civil situations. How long shall such opprobrious stigma disgrace the laws of the most enlightened, just, noble, and most powerful kingdom in the world? Shall the glory of the British constitution be always tarnished by such a monstrous injustice? It is impossible. The sphere of human knowledge has wonderfully advanced during a brief and recent period; the diffusion of it among every class of mankind, has given rise to corresponding improvements in every art and science, and has revolutionised the whole opinions of former ages; so that the reformation of unjust and oppressive penal laws, the offsprings of dark and inauspicious times, must be carried along, in the universal progression of improvement, and in the universal and rapid march of intelligence. Already have thousands of ridiculous and absurd enactments been effaced from our statutes; and never was there a period in which a more magnanimous and paternal monarch swayed the sceptre, or a more consistent and independent ministry formed the council of this mighty empire, than at this time; and therefore the work of regeneration so auspiciously and energetically commenced, cannot fail to be speedily completed.

EBLANENSIS.

SYDENHAM EPIDEMIC.

To the Editor of THE LANCET.

SIR,—Notwithstanding the number and value of those productions concerning the nature, origin, and treatment of idiopathic fever, with which the medical press has teemed of late years, it is still the duty of those who have opportunities afforded them, of witnessing a large portion of individuals affected by this disease, to contribute their testimony, however feeble, to that theory and practice which has been attended with

the happiest results. I feel that I should ill discharge my duty to the profession, if I did not state it, as my decided conviction, formed from extensive observation, that to the matchless work of Dr. Clutterbuck on fever, many hundreds of individuals owe their lives. I well remember the ravages occasioned by the epidemic in 1816; in one village in Bedfordshire, ninety-six individuals fell a victim to this disease. The number of deaths which took place in the epidemic of 1821, when it raged with equal violence, was comparatively trivial; its nature became more perfectly understood, and its treatment consequently was more appropriate; and it certainly appeared to me, that to the great and splendid exertions of Dr. Clutterbuck, this happy alteration was eminently owing. I am here confining myself to what took place many miles distant from the metropolis, with what success his labours were crowned there, I cannot speak. Those medical gentlemen who had dared to doubt the infallibility of those dogmas which had been propounded by Dr. Cullen, and had received the sanction, and been made the text-book of the schools, had not sufficient resolution to act for themselves; and although they were daily beholding individuals suffering severely from a disease which they might, without much impropriety, have called phrenitis, they continued to administer the most potent stimulants; and those who fortunately survived the fever, aggravated, as it was, by the treatment, had the double fortune of recovering from the disease and its intended remedy. When contemplating the vast destruction which fever had produced around them, they could not but admit how utterly inadequate their treatment was, either in arresting the disease in its progress, in mitigating its severity, or in diminishing its fatality; they witnessed in those who did recover, debility of the most appalling kind—dreadful attenuation, feebleness of the limbs, sometimes deafness, impaired vision, partial paralysis, deficient memory, and occasionally a state of complete fatuity. They could trace this disease to no organ but the brain, and could discover no other symptoms but those referrible to an inflammatory condition of it; for even when they beheld great debility, wavering sight, weak pulse, quick breathing, petechiæ, vibices, ecchymoses, they also found insensibility of the extremities, pain in the forehead, tinnitus aurium, delirium, nausea, vomiting, convulsions, spasms, tremors, subsultus tendinum, coma, hiccough, clearly pointing out the irregular distribution of nervous influence, and the consequent diseased condition of the brain. Yet still how few broke through the trammels of their education, trusting to their own mental resources, and pursuing a rational mode of treatment, until Dr. Clutterbuck directed the powers of his great mind to the interesting subject of fever; he accurately demonstrated from its history, its character, the morbid appearances of those who fell victims to its ravages, that it was an inflammatory disease of the brain, and that debility was the effect of fever, not the cause; that it was more apparent than real, and that a removal of inflammation produced a corresponding improvement of health and strength.

It is not my intention to enter into a dissertation on the etiology of fever, but I cannot avoid remarking, that during the epidemic which occurred in Sydenham and its vicinity, in the autumn of 1827, I saw but one instance of fever having affected more than one individual in a family; this certainly appeared to me a powerful argument in favour of the opinions of Drs. Armstrong and Macculloch, who maintain, that all epidemic fevers are owing to the existence of malaria; this I could further illustrate, and prove by a reference to the particular spots where the fever raged; but this task shall be the subject of another communication, as I have many highly interesting facts to adduce on the subject. I took the greatest pains to investigate, if possible, the origin of the fever, and I could not discover the slightest reason to imagine, that in any single instance it had been propagated by contagion. I was more induced to make this inquiry, as the facts adduced in the able production of Dr. Marsh on Fever, were so powerful, that it would almost appear, from his statement, that every case of fever which he witnessed, he could trace it distinctly to the influence of contagion. The epidemic, some account of which I am about to narrate, commenced in the beginning of October, 1827; it occurred at the same time, at the summit of Sydenham Hill, where the soil is gravelly, and in Perry Vale and Perry Hill, where the soil is clayey, and the land in a great measure undrained. The general character of the disease was that of inflammation. The attack commenced with rigours; the pulse was generally wiry, and very frequent; the skin intensely hot, particularly across the forehead, and about the epigastric region; headach, confined generally to the sinciput, with sense of fulness in the eyes, and constriction between the temples; sense of fulness or stricture within the head; much restlessness, tossing motion, and rolling of the head; flushing of the face, with prominence, wildness, and occasionally an inflammation of the eyes; impatience of light and noise; pain in the back and loins; aching in the joints; coldness of the extremities; dark furred state of the tongue; nausea, vomiting, costiveness, and great

fœtor of the breath. The urine was scanty, and the thirst continued, and insatiable. When medical aid was not immediately procured, delirium supervened, and the disease became more unmanageable and dangerous. It appeared to me, that the more violent cases might have been designated meningitis; although, in other cases, where the patient laboured under low muttering delirium, great stupor, and coma, the substance of the brain was most probably the seat of the disease; these, I also observed, were more seldom arrested in their progress than those in which the symptoms were more violent and alarming; and, indeed, the mischiefs which they occasioned, were also more decided and general. Thus, sometimes, extreme debility, partial paralysis, great despondency, disordered condition of the chylopoietic viscera, followed the attack of fever. It is, I conceive, quite in accordance with analogy, to suppose that a difference in the diseased structures, occasions a difference, both in the type and character of the disease; as inflammation of the serous membranes, will always produce more distress than inflammation of glandular or parenchymatous organs. Thus, an inflammation of the pleura, will produce much more pain, fever, and excitement, throughout the system; the disease will be more acute, the symptoms more intense, than when the parenchymatous structure of the lung is the seat of the disease; although, be it observed, that, in both instances, there will be much dyspnœa, cough, and fever, and considerable danger, to the patient, if not immediately and decisively arrested; but the progress is certainly more rapid when the serous membrane is the subject of the inflammation.

Dr. Bretonneau, in his work on fever, has related two instances of this severe character of fever, in which, after a few days of violent delirium, every symptom of acute hydrocephalus took place,—strabismus, dilatation of the pupil, &c.—fatal termination. But, to return to an account of the Sydenham epidemic. I was called, late at night, to the lady of a clergyman, who had been indisposed a few days, but who was then most alarmingly ill. She complained of excruciating pain in the head; her eyes were inflamed, and impatient of light; her head, according to her own expression, was tight, and constricted to an insupportable degree; the sense of hearing was preternaturally quick, and extremely distressing; the circulation was hurried and tumultuous; the body was intensely agitated by every pulsation, and the throbbing of the heart was visible through the clothes; the skin was hot and dry; the tongue parched and brown; and the entire aspect indicative of great distress. I bled her twice very copiously during the night, I covered the forehead with leeches, administered saline aperients with digitalis, and restrained the inordinate re-action by the reiterated application of cold. This plan of treatment at once arrested the disease, and recovery was rendered complete by aperients, rigid abstinence, and complete quietude. In all the cases of this nature which came under my care, I pursued the same plan of treatment, and invariably with the same success.

In other cases of this fever, I found a considerable variety in the symptoms; an illustration of which I will subjoin. I was desired to see Mrs. Welch, of Sydenham Common. I found her complaining of a sense of stupor, weight, and oppression, rather than pain, in the head; her head, however, felt extremely hot, and the action of the carotids was very powerful; her pulse was rapid and full, but sunk beneath the finger without resistance; the skin was dry and tense, particularly about the breast, neck, and head; there was considerable deafness, deep and interrupted sighing, great tendency to coma, tension of the hypochondria, and great irritability of the stomach. After one copious bleeding, and the application of a few leeches, I found great advantage in blistering the nape of the neck, and in the administration of calomel and antimony.

The only fatal case which occurred, of fever, was one of this character; the subject was Mrs. Benning, of Bell Green. I did not see her until a late period of her disease, and then, of course, only a palliative treatment could be adopted; and this, I regret to add, proved entirely ineffectual. She had been much stimulated with wine and brandy when I saw her, her pulse was quick and small, she had distressing headach, noise in the ears, throbbing at the temples; her countenance was flushed, she complained of great restlessness, and was frequently in a state of delirium; the tongue was coated with a thick brown fur, there was parched blackness of the lips, and fœtid sordes about the teeth; the skin was hot and dry, and the thirst incessant; the stools were dark-coloured, and extremely offensive; the extremities were cold, diarrhœa came on, the urine and stools passed involuntarily, constant delirium, difficult deglutition, laborious respiration, frequent hiccough; she became covered with petechiæ, and died. I regret exceedingly that I had not an opportunity of making a *post-mortem* examination of this case; but I cannot refrain from remarking, that, even in this case, where the body was nearly in a state of putridity before death, and in a room, not, by any means, well ventilated, no individual belonging to the family was affected with the fever.

There also appeared to be another variety of this fever, which I cannot better describe than by the narration of a case, as in the former instances. William Gales, of Sydenham, was seized, quite suddenly, with pain in the head, great giddiness, and an apoplectic insensibility; the extremities were quite cold; he lay as if stunned, and labouring under a violent concussion of the brain; his stomach rejected its contents; the breathing was stertorous; the skin was cold, and bedewed with a clammy perspiration; the countenance was livid, dejected, and exhibited the marks of great anxiety and distress. After bringing about re-action, by means of hot flannels applied to the extremities and abdomen, and the administration of a small quantity of stimulus, the disease was effectually subdued by bleeding copiously, leeching, blistering, purging, and calomel and antimony.

Having endeavoured to give you a faint outline of this fever, I will inform you of the treatment and result. Of 45 patients that I attended with it, 26 I bled twice, besides having had recourse to leeches, the number of which I applied according to the necessity of the case; 12 I bled once, generally copiously; the remaining seven, being mild cases, recovered by purging, abstinence, and rest. Of the application of cold, as a therapeutical agent, in the more violent cases of fever, there can be no question, when applied with judgment, that its influence is very considerable, and highly available, in preventing returning inflammation. With regard to its application, a stream of cold water poured over the head, until the face becomes quite pallid, is the most efficacious: its good action can be kept up by any evaporating lotion. Independent of the great comfort the application of cold affords the patient, it is a powerful auxiliary in the subjugation of the fever, particularly when used after bleeding. In those cases in which the symptoms did not exhibit such violent marks of inflammation, cold application to the head did not appear so available; blistering the nape of the neck, was attended with more advantage. However, bleeding is the grand, important remedy, on which, in severe cases, our chief reliance must be placed: it frequently destroys the fever at once; it invariably affords relief to the patient; it mitigates that distressing restlessness which causes so much irritation, subdues the velocity of the circulation, renders the skin moist and cool, diminishes thirst, removes ischuria, relieves headach and delirium, and powerfully restrains the extreme irritability of the stomach; it shortens the duration of fever, produces tendency to repose, and removes that distressing cuticular constriction, the source of much annoyance and irritation in this disease. Of the virtues of digitalis, calomel, and antimony, it would be quite superfluous to speak; but of opium, I trust I may, without presumption, offer a remark concerning its utility. In every case in which I administered it, I found it produced an aggravation of the fever, instead of inducing tranquillity and repose. Independently of its decided and manifest action on the brain, the diminution or suppression of all the secretions, renders its use very hazardous, and its advantages very equivocal: indeed, in some cases of diarrhœa, where I was compelled to employ it, in the decline of fever, it produced such great cerebral derangement, as to oblige me to discontinue it, although with reluctance, there being no effectual substitute in obstinate purging. "Probat, ab usu hujus remedii (opii) diuturniore, organa chylopoiesi et sanguificationi inservientia, adeo debilitari posse, ut officiis suis imparia reddantur. Experimenta Alstoni opium circuitum in vasis minimis, priusquam in majoribus, cohibere probant. Secretiones cohibet; alvum constipat."

I am fearful that I should occupy too much of your valuable Journal, if I extended my observations to any greater length; but I cannot conclude, without conveying to you my humble tribute of thanks, for the important services rendered to the medical profession and to the public, and to the cause of humanity, by your great and unwearying exertions in the diffusion of knowledge. You are said to be too severe; that you would effect more good, if you were to use the rod more sparingly. This is the senseless howl of envy and prejudice. It is impossible, when the health and lives of our fellow-creatures are at stake, that investigation can be too minute, or inquiry too rigid. A single mistake in the treatment of disease, may prove a fatal one. Your success is too well established, to labour under any apprehension, that those who dread your talent possess the power to prevent its exercise. The first part of the eagle's flight is the most difficult; he rises heavily from the ground, but, when once floating in middle air, he cuts the thinning atmosphere in easier course, and, with untired wing, soars upward to the beams of day. Knowledge is power; and its dissemination must conduce to the advantage and happiness of mankind.

Again apologising for my long intrusion,

I have the honour to remain

Your obedient humble servant,

THOS. ROLPH.

Sydenham, Kent, Oct. 15, 1823.

THE LANCET.

London, Saturday, November 15, 1828.

URGED by the repeated solicitations of numerous Correspondents, we were at some pains, a short time back, to learn in what light the University of London would be regarded by the Universities of Scotland; and having, in the course of our inquiry, applied to Mr. HORNER, the *Warden*, that gentleman stated, without hesitation or qualification, that the Universities of Scotland *would not* recognise the certificates of the London University, as qualifications for the diploma, because the latter institution had no ROYAL CHARTER. This fact was communicated to the public in No. 262 of THE LANCET, and was afterwards copied, from this Journal, into a large majority of the London and country newspapers. The managers of the University of Edinburgh are evidently annoyed at the extensive diffusion of a piece of intelligence which must brand them with no small portion of disgrace, and, with a view to remove the stigma which attaches to their character, have published the following REFUTATION of the alleged calumny:—

"A paragraph having lately appeared in several of the London and country newspapers, stating, that the University of Edinburgh had passed a resolution, that they would not receive the Certificates of the Medical Professors of the University of London, because it has not a Royal Charter, we have authority to state, that the University of Edinburgh have not passed any such resolution. The certificates of the Professors of the University of London, will have equal consideration with those of any of the Lecturers at the London Hospitals. By the *Statuta solennia de Doctoratus in Medicina Gradu in Academia Edinburgena*, no certificates of attendance on Lectures are received, unless these have been delivered in an University which grants the Medical Degree. But these *Statuta* have been in force many years. By the same *Statuta*, four years' attendance upon the Lectures in the University, are necessary to qualify for examination; but students from any of the great London Hospitals are allowed to graduate after three years of University study, and the same privilege will attach to the students of the University of London. We have authority for this statement, as far as the University of Edinburgh is concerned, and we believe that the other Universities of Scotland are equally incapable of so unworthy a proceeding, as that of taking any step in opposition to the University of London."

A first glance will convince the intelligent reader that this is a mere shuffle,—a despicable quibble,—and is, in fact, any thing but a refutation of our former statement. We said, that "the certificates of the London University would not be received, for the diploma, by the Scotch Universities." And what is the answer? "The certificates of the *Professors* of the *University* of *London*, will have *equal consideration* with those of any of the *Lecturers* at the *London Hospitals*;" and further, "students from any of the great London hospitals are allowed to graduate, after three years of University (Edinburgh) study." We are also informed, that, "by the STATUTA, no certificates of attendance on lectures are received, unless these have been delivered in an University which grants the *medical degree*." Hence, as medical degrees are granted at Dublin, Glasgow, Aberdeen, and St. Andrew's! certificates from these Universities are received, but not from the UNIVERSITY of LONDON, because it neither confers medical degrees, nor has it that literary appendage—a royal charter. Besides, say the liberal Scotchmen; our *statuta* "have been in force many years * * * and we are incapable of taking any step in opposition to the University of London."

If the Statuta have been in force many years, the more imperative is the demand for their revision. The London University was not established when they were first framed, consequently it could not be recognised; but surely it has a claim to equal privileges with those of St. Andrew's and

Aberdeen! The University of Edinburgh will "take no step" against that of London. This may be, for, in her present position, she presses with all her might on the infant institution, which might obtain freedom from a single movement.

The refusal of the certificates of the London University by the Universities of Scotland, discloses another of those anomalies in the laws respecting medical education, which are gradually coming to light by the operation of the system. Virtually, the new London School is an university; legally, it seems, it is not an university. It has, for instance, Professors of all the medical sciences taught in the chartered colleges; but it has no charter, and, consequently, its lectures, however excellent and instructive, cannot be received for the diploma by the schools of the North. The line of distinction attempted to be drawn and acted upon in this case is most illiberal, mischievous, and absurd. While Professor Pattison lectured on the banks of the Clyde, the information which he communicated was deemed an indispensable sixth of the legitimate knowledge of a doctor; but it would appear, that on the banks of the Thames, he has lost all power of communicating instruction, and that knowledge which he could once convey, is now reduced to a nullity in the college calculations of his former associates in the University of Glasgow. We are not, of course, surprised that the Edinburgh senate have refused to make any alteration in their *Statuta* in favour of the new institution, for in this decision they have only acted with their accustomed consistency, in protecting their own interests in direct opposition to the best interests of mankind. Had they accepted the certificates of the London College, few, if any, English students would in future visit Scotland, and thus their *certificate* monopoly would, at least, have been destroyed. The foresight and illiberality of the Scottish managers may, for a while, secure to them a continuance of profits unjustly acquired, and protect them from the superior advantages of their infant, yet powerful rival. The UNIVERSITY of LONDON is established on a solid foundation; it has commenced under the best auspices, and will flourish, although the certificates of its Professors may not be received as testimonials of qualification for worthless Scotch diplomas.

WE have reason to believe that the Council of the intended King's College have abandoned their scheme of forming a Medical School. This will be a fatal blow to the sanguine hopes entertained by the medical geniuses of St. George's Hospital, who have struggled, night and day, to get the new building erected near that unpolluted fountain of "Sound Chirurgical." The "eminent" put down his name for a good round sum, which secured him *a seat* in the Council; but, with that body, *a head* is deemed of much greater consequence: hence he has little or no influence.

THE Committee of Governors at St. Thomas's Hospital have at length resolved, that a Surgeon and a Physician shall visit the patients in the wards daily. How many centuries had the Hospital existed before even this act of justice was conceded to the poor patients! We trust that the pupils will derive benefit from the arrangement; they, for years, have been paying heavily for promised information, which was not communicated.

A VACANCY has occurred, in the office of Physician to St. George's Hospital, in consequence of the death of Dr. PEARSON.

BIOGRAPHY.

CHARLES TUCKER, ESQ.

Died, lately, at Alphington, near Exeter, Charles Tucker, Esq. staff-surgeon.—This gentleman had collected a rich museum of antiques; which, among other curiosities, contained an ancient arrow-head, found by Lord Byron on the plains of Marathon, and by him presented to Mr. Tucker. He had brought from Italy many beautiful pieces of sculpture of Canova's workmanship. Of these, one was the Plateau, intended by Napoleon as a present to Maria Louisa. This consisted of a model of the Parthenon, cars of Hector and Achilles, temples of Jupiter and Apollo, and various other elegant designs. Also, he had a most admirable museum of wax models, exhibiting a great part of human anatomy, in a manner so exquisitely perfect and beautiful, as to delight the scientific by their accuracy, and the artist by their perfection of execution.

There were fancifully disposed in Mr. Tucker's garden, valuable antique vases, and remains of exquisitely-wrought Sarcophagi. The hope of one day seating himself among these invaluable possessions, and of calling about him the men of talent and of taste to enjoy them with him, had formed the polar star of his varied life. His scheme was, however, very imperfectly realized, owing to the miscalculations of a too sanguine mind; but even after curtailments he possessed such an assemblage of objects, calculated to feed the mind and excite the imagination, as few, even of those who delight in such, are able to acquire. Those who knew Mr. Tucker in private, have seen a perfect example of what is graceful and gentlemanly in demeanour, and have felt what is the charm of "personal converse and wit." He was deep in information, elegant and bold in fancy, fluent and powerful in language: illustrating his most original ideas with stores of anecdotes, which, as they were the produce of various languages, ancient and modern, were almost inexhaustible. As a practitioner, Mr. Tucker was eminently scientific; a thorough hater of humbug and mere pretension, and, as a necessary consequence, a friend and admirer of a free medical press, and of every thing liberal, talented, and useful. Why, it may be asked, so much about Mr. Tucker? Had the inquirer known him, his query had been, Why so little? If he was not eminent, he deserved to be so, more than four-fifths of those so esteemed; and it was to me quite intolerable, that one so gifted should die in that silence which befits the death of mediocrity.

W. C.

London, Nov. 9th, 1828.

RE-PRODUCTION OF THE LENS.

To the Editor of The Lancet.

Sir,—Some time back, seeing in your valuable Journal an account of the re-production of the crystalline lens, after being extracted, I was led to try the experiment. The result I now send you, and, should you deem it worthy a place in The Lancet, I should feel obliged by your inserting it.

August 12, 1828, I extracted the lens of a *half grown* rabbit. On the 24th of September following, the animal was killed, and, occupying the position of the original lens, was found a new lens, of the *general form*, but of a *much softer consistence*. It may be right to state, the rabbit had the faculty of vision with the eye. I remain, yours, &c.

Henry Day.

21st Oct. 1828.

LONDON MEDICAL SOCIETY.

November 10, 1828.

Dr. Haslam, President, in the Chair.

POINT OF ORDER—LIBERTY OF THE MEDICAL PRESS—MR. AMESBURY'S COMPLETE CURE OF A FRACTURE OF THE NECK OF THE THIGH-BONE.

The Minutes of the two last meetings having been read:—

The President said, that he did not consider himself taking a part in the discussions of the Society, though, at the commencement of this evening's business, he felt himself imperatively called upon to rise to a point of order. The Society had met last week—a general meeting "for receiving a report of the state of the Society;" no report, however, was prepared for the information of its members, (cries of hear, hear,) and, therefore, he had been under the necessity of calling upon the officers of the Institution, respectively, to state what they knew of the Society's affairs; still this was not a report. A report, he presumed, was to be considered something delivered to the Society in writing, delivered to it in the most substantial form; and he should have apprehended, that if such a report had been, as it ought to have been, duly made, it would have comprehended, first, the specific accounts of the treasurer, next the communications which the secretary for foreign correspondence might have had to bring forward, and likewise whatever the librarian might have had to disclose. The report not having been made, he conceived the purpose of the last meeting had not been fulfilled, and it was for the members to act upon this suggestion, as they should think right. (Applause.)

Mr. LAMBERT rose and said, the welfare, and the very existence of the Society, in his mind, depended so much on the right feelings of its members at large, that he had that evening—

Mr. FIELD (the Registrar) interrupted, to inquire of Mr. Lambert, whether it was of the ordinary business of the Society he was about to speak?

The PRESIDENT. Sir, you are not the proper person to ask that question.

The REGISTRAR. Sir, I rise to order.

The PRESIDENT. Then, Sir, sit down to order.

Mr. LAMBERT considered the objects of which he was about to speak, importantly connected with the interests of the Society. He had thought that a fellow of the Society had, whenever he pleased, a right to speak on any subject connected with its welfare. If the Registrar, who had taken the liberty of interrupting him, trembled lest he was about to bring forward the subject of publishing the proceedings of the Society, he begged to inform him and the Society at once, in the plainest terms, that that was the main topic he meant to discuss.

The REGISTRAR (interrupting again). Then you have no right to bring that forward. (Cries of, chair, chair.)

The PRESIDENT (addressing the Registrar). Sir, I request that you will be silent. I shall read a law to the Society, compelling you to keep more in order: "All Members shall pay implicit obedience to the President, in the execution of his office." (Hear, hear, hear.)

Mr. LAMBERT. The book of laws of the Society commenced by declaring—"The principal part of our knowledge must ever be derived from comparing our own observations with those of others;" and yet there had been, as he had understood, a base attempt made to prevent the diffusion of the observations made in this Society. If such an impression went forth to the public of the feelings of the Society, none could be more totally destructive to its prosperity and interests; nor could it be stigmatised with any reproach too great. (Hear, hear.) He appeared that evening prepared to advocate and maintain the principle of the liberty of the medical press. But for the publication that had already gone forth of the proceedings of the Society, the Institution, in all probability, would have long, ere now, been wrapped in its shroud; and it had pained him, in no small degree, to find that, at this period of the day, there should have been this base attempt made to have "hole and corner" work established within the walls of that Society. (Hear, hear.) Had he dreamed of any such a wish ever having entered into the minds of its members, he would have scornfully rejected the character of one of its fellows; nor would he now continue to be associated with those who maintained such principles. The very atmosphere of a society so conducted would choke him, if he were to step within its threshold.—

The REGISTRAR again rose, and attempted to interrupt.

The PRESIDENT. Sir, I shall not hear you.

The REGISTRAR. I rise to order.

The PRESIDENT, You have no right to make these interruptions.

The REGISTRAR. Then I call upon the Vice President, Dr. Williams, to say, whether it is not out of order, that such a statement as this should be made in the Society. (Hissing from various parts of the room, and cries of chair, chair; shame, shame!)

The PRESIDENT. Mr. Lambert, proceed, Sir, if you please.

Mr. LAMBERT resumed. If the Members of the Society were to be hampered in this manner; if they were not to be permitted to bring forward whatever subject they pleased before the Society, touching their interest as a body, he would at once take upon himself the responsibility of calling a general meeting, to inquire into the necessity of re-organising the Institution. He felt there was a disposition, on the part of some of the Council, to act over the large body of members upon an aristocratic principle, but which he never would submit to, for he acknowledged no aristocracy but an aristocracy of talent. Mr. Wakley, the Editor of THE LANCET, had commissioned him to state to the President and Society, that he had no inclination whatever to publish, nor would he publish, a syllable of what transpired in the Society, unless it met with the entire approbation of its members. He, of course, did not mean to be understood to say, that the Editor would pay the slightest regard to the objection of any two or three, or half dozen, narrow-minded members, if such could be found in the Society, to the publishing of the reports, and who might well feel sore on seeing their nonsense (laughter) exhibited in print; but if the majority wished for publicity, the Editor would continue to give the reports in the faithful and very useful manner he had done; and he (Mr. Lambert) there and then demanded, on behalf of the Medical Press at large, the Society's declaration of a perfect right to enter the room at any period the medical reporter pleased.

The PRESIDENT observed, that he had full power, if supported by five of the Members of the Council, to call a general meeting. Should Mr. Lambert request that meeting to be called therefore, to have this subject taken into consideration, and should he be

thus supported, he would call that meeting forthwith. The circumstance, too, of gentlemen not being at liberty to introduce their friends at the last meeting, was one greatly to be deprecated, inasmuch as it was directly opposed to all existing law. The conduct of the last meeting was a sufficient reason for protracting the debate of this evening.

Mr. PROCTOR objected to the term Mr. Lambert had used, "hole and corner."—"Hole and corner men" imported a *faction*—a *party*, and which was not to be found in that Society. His only objection to publishing the reports was, that they had *not*, in all instances, been fairly reported. [The speaker, however, on being pressed, was unable to bring forward a single instance of inaccuracy.]

Dr. WILLIAMS, who felt second to no man in zeal for the honour and dignity of the Society, really believed that the notion of there being an objection on the part of any one individual member to the reports being fairly published, was a gratuitous assumption. If it was an entire assumption, the discussion of this evening had been altogether premature. He strongly objected to the term "hole and corner," as applicable to any part of the Society.

Mr. WALLER observed, that the assumption was *not gratuitous*, nor was it confined to Mr. Lambert. He unhesitatingly declared, that he had witnessed objections made to the publication of the proceedings; and it was due to the Society, now that the subject was brought openly and fully before it, for its members to come forward and wipe off the reproach, by showing, in the most decided manner, that so far from there being an objection to publishing the reports of its proceedings, if it were (as he firmly believed) put to the vote whether the members would have them published or not, it would be carried by at least four to one! (Cries of hear, hear.)

Mr. SALMON was an advocate for the liberty of the press. If a discovery, or new subject, presented itself to his mind, by which he thought both the community and himself might be benefited, about the very first thing he should do would be to detail it to this Society, if he believed the medical press would lay hold of it.

Mr. BLENKARNE could not suppose there was an objection on the part of the Society to the publication of its proceedings, provided they were accurately made; and he thought, not only as the only mode of securing that accuracy, and also as a just remuneration to the Registrar, *he* ought to be appointed to furnish the reports, and through him alone should they be permitted to go to the press. (Hissing, and cries of no, no.)

Mr. TAUNTON said, if the subject was to be prosecuted further, in his opinion it ought to go before the Council, and in all probability they would call a general meeting upon it; but he really could not find there was any solid objection to the reporting.

A MEMBER took the liberty of saying that he thought the evening had been frittered away in discussing that which was *private*, and in talking *nonsense*, by which means he had been prevented bringing forward something *exceedingly interesting*.

The PRESIDENT was prepared to bear testimony to the perfect accuracy with which the reports had been made in THE LANCET; and he thought great credit was due to the Editor for coming forward, through Mr. Lambert, to make the kind and candid statement he had done, namely, that he was willing either to continue or discontinue the reports, just as the Society pleased. He (the President) thought he might now safely declare it to be the opinion of the Society, that there was no objection whatever existing to the system of reporting.

Mr. LAMBERT said, he was sure his friend, Mr. Wakley, would be glad to hear, not only this declaration, but that the members had rejected any thing in the character of "hole-and-corner-men" being applied to them. Mr. Blenkarne's observations only demonstrated to persons of common intelligence, how ignorant he was of the system of reporting, or of the manner in which editors would consent to have their materials brought to them. The medical press had done more for this Society than any thing else possibly could have done; it had made it known far and wide; it had brought a great number of members to it; and, without its continuing to notice the proceedings, the majority of those members would almost entirely abandon it, and he himself would never set his foot within its walls.

Dr. STEWART concluded the business by an amusing suggestion. If there should be any person found disposed to object to the publishing of the reports, let the *onus* lie on that individual, of calling a general meeting. (Laughter.)

Mr. FIELD declared, he did not believe there was any objection whatever to reporting.

Mr. WALLER observed, that this was in direct contradiction to what had been stated on a former occasion.

Mr. LAMBERT felt astonished, that a servant of the Society should be permitted to beard the Fellows of the Institution at his pleasure; if he continued to do so, the question would be, whether such servant ought to be suffered to remain in office any longer. (Hear, hear!)

FRACTURE OF THE NECK OF THE THIGH BONE.

Mr. Amesbury produced a patient, to show that an union of a fracture of the neck of the thigh bone had been effected, in the most perfect manner, by his mode of treatment. He could not state exactly, whether the fracture was within the capsule or not; he was inclined to think it was. It was almost impossible to detect the slightest limp when the man walked. By the finest measurement, however, the limb could be found to be about a quarter of an inch shorter than the other. Mr. Amesbury consented that any member should be at liberty to put some questions to him, respecting this case, at the next meeting, the Society's time having been now exhausted.

ST. THOMAS'S HOSPITAL.

CASE OF DISLOCATION OF THE FEMUR BACKWARDS, WHICH HAD EXISTED FIVE MONTHS, AND IN WHICH THE REDUCTION WAS EFFECTED.

Benjamin Whittemburgh, a stout muscular man, was admitted, under the care of Mr. Travers, on the 4th of November, with dislocation of the femur on the dorsum of the ilium. He stated, that on the 4th of June last, a tree fell upon him, and he thus received a severe injury, on account of which he sent for a practitioner, who failed to discover any thing wrong about the hip. However, at the end of six weeks, he told the *surgeon* that he was certain the bone was displaced; to which the *surgeon* replied, that if it were so, it must remain, for it was too late to attempt reduction. At length he was advised to go to the Hospital, after the dislocation had existed five months.

When admitted, the characteristic signs of dislocation of the hip backwards were found to be very distinct;—the limb was about two inches and a half shorter than the opposite. Notwithstanding the great length of time in which the bone had remained dislocated, Mr. Travers determined on attempting reduction; and with this view, on Friday last, the man was put on the table of the operating theatre, having first been put in the warm bath, and bled. Extension was made in a right line with the body, and a dose of solution of tartar emetic was given every ten minutes. After the extension had been kept up for about half an hour, blood was taken from the arm; and, afterwards, continuing the force steadily for nearly the same length of time, the bone was at length reduced.

The patient passed a restless night, and suffered much pain, but we found, on visiting him at noon, that the bone was *in situ*, and he had the power of rotating the foot outwards. But, when seen by Mr. Travers, in the afternoon, the bone had become displaced—there was considerable shortening of the limb—and, in short, every symptom as before reduction.

It is intended to attempt reduction again, and then to place the limb on a double inclined plane.

GUY'S HOSPITAL.

IRREDUCIBLE HERNIA.

Supposed Case of Reducible Scrotal Hernia, in which the Taxis, Bloodletting, Soaking, and Smoking, were employed without effect.

James Paulson, æt. 30, admitted on Saturday evening, Nov. 8, at seven o'clock, states that he has been the subject of hernia several years, that it occasionally descended, and was always reduced with facility; but when lifting deals, on Friday, the gut came down, and he was unable to return it. He applied to a practitioner at Camberwell, who sent him some purgative medicine, which he supposes were salts, and which produced many fluid evacuations. Having much pain, and being unable to reduce the tumour, he applied to the Hospital. When admitted, there was a large pyramidal swelling in the scrotum, very painful, and, apparently, containing a considerable quantity of fluid; the dresser applied the taxis without effect; the assistant-surgeon was then sent for, and he directed the man to be bled to ℥xxiv., and put in the bath, and twenty leeches to be applied to the abdomen; the taxis was again had recourse to for a considerable time, without being able to return the intestine. Ice was directed to be applied to the scrotum.

Mr. Key visited the patient at ten the following morning, and the swelling was not diminished; it was very tense and painful; the abdomen very tender when pressed. The taxis was again used by Mr. Key without benefit. On removing the bed-pan, there was a large watery evacuation, which Mr. Key said he supposed to have been derived from the small intestines, and produced by a saline purgative; but whether above the seat of stricture, or not, he was unable to say. He directed the man to smoke some strong tobacco till sickness, and great relaxation were produced; before he had finished the second pipe, he experienced great nausea, and much faintness; the abdominal muscles were much relaxed, and Mr. Key again used manipulation for some

ime, without effect. He then ordered two grains of calomel, and ten grains of colocynth extract; and if it should not operate in an hour, to repeat the dose.

On visiting him at three o'clock with Mr. Key, we found him much easier; he had had two motions, which the senior surgeon said he had never seen when strangulation existed; he again applied the taxis without effect, and told the man if he were not much better in three or four hours, he should advise the operation, to which the patient readily consented.

At half past nine in the evening, he was much better; the tongue was moist and clean, and he said that he felt as if air passed from the tumour to the groin with a gurgling sound. The tumour and abdomen still tender to the touch. He was directed to take five grains of calomel, and one grain and a half of opium. Twelve leeches to be applied to the scrotum.

10. Bowels not relieved; slight tenderness on pressure; pulse 80. Ordered purgative pills.

11. Quite free from pain; tongue clean; bowels freely open; pulse about 80, soft; scarcely any tenderness on pressing the abdomen.

NO HERNIA.

Supposed Case of Strangulated Scrotal Hernia, in which an Operation was performed, but neither Intestine nor Omentum was discovered—"Suppuration" of the Sac, without Pus!

Robert Messenger, æt. 60, applied to the Hospital, Nov. 9, at half past two in the afternoon. He stated that he had been the subject of hernia for fourteen years; that it occasionally descended, but was returned with facility; that, on Friday afternoon, he accidentally struck against a post, when the present swelling appeared. There was a firm, hard, and immoveable tumour, in the situation of inguinal hernia, and extending half way down the scrotum. He vomited on admission; there was considerable tenderness of the tumour, and likewise of the abdomen, when pressed. He had rather an anxious countenance; pulse quick and wiry; did not complain of great pain, but said that he felt as if there were a band at the lower part of his body.

Mr. Key visited him about three o'clock, and applied the taxis for about ten minutes, without any effect on the tumour; he then directed him to be put in the warm bath, and kept in for twenty minutes; when taken out of the bath, he was bled to sixteen ounces, and, on feeling faint, the taxis was again used, but without any avail. Mr. Key now proposed the operation, to which the man readily consented.

Operation.

The incision through the integuments was made in the usual manner, and the difficult layers of fascia and cellular membrane were carefully divided, until, at length, the sac was reached. An opening was carefully made, and it was found to be very much thickened, bearing no resemblance to the peritoneum; when freely laid open, the only contents that could be discovered, were some flakes of adhesive matter. *There was neither intestine nor omentum.* Mr. Key pronounced it to be a "case of suppuration of the sac;" but, on being questioned by a pupil where the *pus* was to be seen, he remarked that there was no pus, but only adhesive matter. The patient was put to bed, and five grains of calomel, with a grain and a half of opium, given. He laboured under great prostration of strength, after the operation; the pulse was feeble, and the extremities cold. He vomited soon after taking the pills, but shortly fell asleep. At half past nine o'clock in the evening, Mr. Key visited the patient, and directed the calomel and opium to be repeated. The pulse was still feeble.

Nov. 10. Says that he is much better. Pulse 100, and compressible; slept soundly in the night, and has had two injections, but the bowels have not been relieved. The lower part of the abdomen is tender on pressure. Ordered to take two drachms of sulphate of magnesia, in peppermint water, every four hours. Twenty-four leeches to the abdomen.

11. There is still pain and tenderness at the lower part of the abdomen; the pulse 100. The bowels have been freely moved four or five times.

HOTEL DIEU.

OPERATION FOR CONGENITAL CATARACT IN BOTH EYES.

A girl, of about eight years of age, of very limited intellectual faculties, and a feeble constitution, being affected with congenital cataract in both eyes, was operated on both eyes by depression, and the little patient had, for nearly a twelvemonth, recovered the use of her eyes, when the lenses rose up, and again deprived her of vision. M. Dupuytren then depressed the lens of the left eye, and the patient perfectly recovered the sight of it; but having, during her blindness, contracted the habit of directing the eye upwards, or of keeping it in constant motion, vision was so indistinct that she was unable to walk without assistance, and could not even fix the eye voluntarily on the objects which were

pointed out to her. She gradually learned to recognise objects; it seemed, however, that the muscles of the eye had become so accustomed to a vacillating motion, that she was unable to look steadily, and in a certain direction, without considerable effort; she could very easily distinguish colours, but it was only after long practice that she could judge correctly of form and distance. The hands were constantly stretched out towards the objects she wished to see, as if to assist sight by touch. When the patient had recovered the complete use of the left eye, M. Dupuytren performed the same operation on the right one; very soon after it, she could see with the latter, but the same defect in its movements, and the same difficulty of fixing the objects, occurred, so that only after a continued practice it became equal to the left eye. Another difficulty then arose, viz. that of associating the motions of both eyes, which is of much more importance in this case, than in squinting, where one of the two eyes is often in a state of complete inactivity, from amaurosis, ulcers, or spots on the cornea, &c., while, in the instance before us, both eyes are equally healthy, and thus must necessarily cause a considerable confusion in vision, as long as they are not brought to converge.—*La Clinique.*

THE PHRENOLOGICAL SOCIETY,

No. 15, Buckingham Street, Strand.

(SOCIETY NIGHTS.)

Nov. 17.—Dr. Elliotson will present from the Phrenological Society of New York, four Casts,—one of a Captain of Banditti, and three others, those of his men.—A Paper upon the same, by Dr. E.

Dec. 1.—On the gradual development of the Nervous System, from the Zoophyte up to Man, by Dr. Epps.

Dec. 15.—A Paper, by Mr. Crook, on Gillman, the Murderer:—one by Dr. Epps, on Corder,—and Joshua Slade, the Murderer of the Rev. J. Waterhouse.

Conversations.

Nov. 10.—Dr. Moore.

Nov. 24.—Dr. Epps on Morality, considered Phrenologically.

Dec. 8.—Dr. Wright,

Dec. 22.—Mr. Maugham on Hamlet.

Order of Council.—Visitors must be admitted by personal introduction, or by ticket.

CONFESSION OF A DEMONSTRATOR.

To the Editor of THE LANCET.

SIR,—I have watched with considerable interest the attempts you have made to rectify those errors and abuses in the medical profession, which, before your valuable hebdomadary first attracted the notice of its members, were suffered to exist without public animadversion, though felt severely by all those individuals who possessed any desire to sustain the character for science which so invaluable a pursuit deserved. You have succeeded to an extent which the most sanguine of your readers could hardly have anticipated, from the apparent apathy of those most interested.

This apathy has been proved, however, to have existed only in imagination; and as soon as an opportunity offered itself for the display of general feeling, such an exposure of the tricks and meanness of those in power was made, as showed that the indignation which was presumed not to have been felt, was only smothered for the time, and that opportunity was alone wanting for the display of it.

The service you have rendered to students has been universally acknowledged, and the virulence of some of your contemporaries has shown how severely your flagellations have been felt.

But, Sir, all is not yet accomplished; and as you have begun the good work, you must not flinch from completing it.

The system of electing instructors for those young men who are to be sent forth into the world as possessing "sound chirurgical," from among men whose only qualification is that of having been apprenticed to surgeons of a hospital, must be eradicated; and THE LANCET must not be used with a tremulous hand.

The world must be shown that merit, not interest, should guide those in power in the choice of the teachers of those who are to succeed, and possibly surpass them.

Conviction must be forced upon the minds of those electors, and of those who put the elective franchise into their hands, by showing the culpability of their conduct; and cases are by far the best evidence which can be adduced for the purpose.

I will, therefore, give a case in point, and you will take the sense of the public upon it.

At one of the largest and most respectable of the medical classes in the metropolis, not two miles from Smithfield, *one* of the demonstrators, on the 24th inst., publicly declared before a large assemblage of pupils, that "he had no mathematical head," and that he was "utterly unacquainted with the laws of optics," and presumed that

those whom he addressed were as "ignorant of them as himself."

This statement by a man who is naturally regarded by his auditors as an embryo hospital surgeon, was made with the most unblushing assurance, and appeared to be rather a boast than an apology.

Were a man of the most undoubted genius and research to have made an *admission*, testifying a tythe of the indifference to any single subject, connected in the most remote degree with what he ought to be acquainted with, all men of any proper feeling would have been shocked at his callousness, and would have pitied the weakness which could have led him into such a dilemma.

But, Sir, what must be the natural effect of such a brag on those to whom it was exhibited? It must lead them to think that such subjects are worse than useless as a study —that the attainment of them is only to be had by throwing away time; and that if a man can be made a surgeon to one of the chief hospitals in the world, without a knowledge of the laws which govern a science with which any man, who pretends to a liberal education, ought to be acquainted; they, in the confined sphere in which they will probably move, from being excluded from the possibility of enjoying those honours to which the profession at large ought to have access, will find such attainments useless and unprofitable. The individual in question may try to hide ignorance and assumption by an affectation of the manners of the chief lecturer in the hospital; but let him remember that the roughness which is tolerated in a man of undoubted talent, when assumed by one whom none of those who know him regard as possessed of his office by any other title than that of the election of close-minded bigots, only makes his want of education the more conspicuous. The *lion's skin* did not suffice to hide the *ears* of *the ass*.

I am, Sir,
Your most obedient servant,
Εξεταστης.

London, 25th Oct. 1828.

GLASGOW INFIRMARY.

"Δος τω Καισαρι τα του Καισαρος και τω θεω τα του θεου."

To the Editor of THE LANCET.

SIR,—You will no doubt remember, that in a late Number (267) of THE LANCET, you were so kind as to give place to a letter of mine, containing an account of a supposed case of dislocation, which, after a very free and repeated use of the pulleys, proved to be nothing more than inflammation of the hip-joint.

Now, Sir, you must have observed that the case I gave was one which I had only ventured *to suppose*, and that too as occurring in any infirmary: I did not specify in what one, nor did I say if it had in reality taken place in any. What then, think you, must have been my surprise, on being told, (only two days after THE LANCET had reached Glasgow) that I was charged with having acted contrary to the rules of the Royal Infirmary, *in reporting the case of No 5, nurse*, and that my expulsion from the Infirmary had, by reason of this, been taken into contemplation.

On being told this terrible tale, it is scarcely necessary to add that I was in no trifling degree entertained to find, that this vile and most unpardonable of blunders, which I had quietly amused myself by *supposing* to be made, (alike in any place, and by any person) had actually been committed in the Royal Infirmary of Glasgow, to the lasting disgrace and infamy of its Hospital Surgery. And now that we are discussing the merits of Hospital Surgery in general, I could, (were it not for raking up the ashes of the dead, and causing the wounded feelings of the living to bleed anew,) tell you of fearful and of fatal hemorrhages, of badly performed and destructive operations, of the grossest of blunders, and of consequent deaths; I could, in short, reveal to you such tales of horror, and of murder, and of blood, as should convince both you and your readers, that, however, many may fall a prey to the rashness of suicide, or the blood-thirstiness of the assassin, they are but few, when compared with the number of those who yearly fall victims to the ignorance and the carelessness, and the butchery, of hospital surgeons.

But to return from this digression. As I said, but now, my expulsion from the Infirmary was taken into contemplation; and to effect this, it was of course necessary that some efficient step should be at once taken. A meeting of medical directors of the institution was, *therefore*, immediately called, for the purpose of taking the matter into serious consideration. To trouble you with the names of those who composed this meeting, and with the individual opinions delivered on the occasion, would be altogether useless and unnecessary. Suffice it to say, that in this, as in most other meetings, there were present both black and white, those who really deserve the name of honest men, and those who would think it treason if they were called by any other. It must not, however, be supposed that this meeting was called by the unanimous desire of the Glasgow surgeons. By no means.

Nor do I believe it to have been done by the general wish of the medical officers then officiating in the Infirmary. Even the worthy Doctor himself, under whose care this very dubious case was placed, and by whom the very judicious treatment which was employed was prescribed, did not appear in the affair. No doubt he was at the bottom of it, and, perhaps, had a very active share, through the medium of certain worthless instruments, in giving still further publicity to his own ignorance and folly, in holding up those who were such fools as to engage in the affair, to the just ridicule and contempt of every sensible and reflecting man. But, to proceed. The precious characters, who proposed, I might almost say insisted on, the assembling of this aforementioned meeting, (in determined opposition to the prudent remonstrances of the gentleman to whom they applied for the purpose against the proceeding,) were John Couper and Robert Cowan, both of whom are come on to-day, as surgeons for the ensuing six months. These precious wiseacres, no doubt flattered themselves that they were about to accomplish great things by their activity and exertions, and made themselves pretty sure of having me safely and snugly put away. In this, however, they were sorely disappointed; for after having coolly discussed the matter, it was decided that *nothing* could be done to me, as I had only stated those things which were in reality true; and consequently, my expulsion was entirely out of the question. There was, to be sure, a something said about the possibility of calling me up before the managers of the Infirmary, and giving me a reproof!!! But fearing, I suppose, that a simple reproof would not very much avail, in recalling their apostate child, this proposition was also laid aside. Finding, then, that there was no chance of getting me punished (forsooth!) by these means, it was proposed to the surgeon, under whom I was dressing at the time, to dismiss me; and it was even represented to him, *that he ought, as a point of duty*, to take my situation from me, on account of my unwarrantable and unjustifiable conduct. In this attempt, however, their very *charitable* labours proved abortive. For the Doctor, instead of viewing things in the same light with these gentlemanly and most honourable men, thought fit to refuse engaging in any measure of the kind, and allowed me, quietly and uninterruptedly, to discharge the humble duties of my office till the present day, when the term of my dressership expired. How far, then, their labours have been crowned with success, they have a fair opportunity of judging. And I have now only to inform them, that if they hope to intimidate me by anything they may think fit either to say or to do, they will find themselves miserably disappointed, as I have already lived by far too long, to be frightened either by the "braying of an ass," or by the "babbling of a fool."

John Couper, too, of whom I have above spoken, (as one of the visiting surgeons for the coming winter,) has thought fit to give it as his very sage opinion, that "we must take care not to have any literary dressers again." Now, what the man really meant by this wise speech of his, is, perhaps, somewhat doubtful. There appears to me, however, but one clear and obvious construction of which it admits; viz., that conscious of his own ignorance and inability to discharge the duties of a hospital surgeon as he ought to do, he is anxious not to have any dressers under him, who being better informed than himself, will be able to expose his errors, and hold him up to deserved ridicule. Times are, in truth, come to something, when, instead of electing the most intelligent and best educated among students to fill the situation of dressers, the surgeons are compelled to search out for the most ignorant, in short, for absolute fools, (if they can be found,) to prevent the possibility of publishing their own shame and disgrace. O tempora! O mores!!! It would, in my opinion, be much better for men of this kind, to keep out of our public institutions altogether; and if they feel conscious of their inability to cure the sick, why, for heaven's sake, let them not come to kill them. It may, however, be as well for me to inform our infirmary surgeons, that it is not the dressers alone whom they have to dread, as I can assure them, there are not a few among their pupils, who never having filled, and never intending to fill, the very honourable situation of dresser, know fully well what is good, and what is bad, surgery, and are equally as ready as any of the dressers to expose ignorance, whenever and wherever it shows itself. But it is not right in me, to encroach so much on the columns of your Journal in speaking of such a person. I will, therefore, conclude this subject, by informing him, that after the very great interest which he and Robert Cowan have lately thought fit to take in my concerns, I shall feel myself bound, in gratitude for their kindness, to pay the most unremitting and especial attention to all the cases under their treatment, in order that I may have an opportunity of acquainting you and the public with their practice, whether it be good, or whether it be bad.

It had been my intention to give a comparative view of the surgical practice of Dr. Maclachlan and Dr. Auchincloss, the two visiting surgeons in the Infirmary, during the last summer months. As, however, I cannot think of insulting Dr. Auchincloss by

comparing his practice with that of Dr. Maclachlan, I forbear entering on the task.

There have been, as you must be aware, a few cases, of a nature very nearly, if not quite, bordering on that which is disgraceful, communicated to you during this summer, as having occurred in our Infirmary.

I will not (lest it should injure the feelings of any one) say under the care of *which surgeon* all these cases were; it is, however, but justice for me to state, that they were *all* under the care of *one*, and that one *was not* Dr. Auchincloss.

It would, perhaps, be altogether unpardonable, to waste either time or paper, in giving any account of Dr. Maclachlan's attempt at clinical lectures. Of Dr. Auchincloss, however, we must speak in a laudatory strain. After a course of laborious and increasing exertion for the good of his patients, and the interest of his pupils, he has retired, for a while, from the active duties of his office, equally esteemed and regretted by all those with whom he was in any way connected. His anxious and unremitting attention to all the patients under his care, the almost unvarying success of his practice, and his constant regard to the wants and comforts of his patients, as well as the instruction and advancement of his pupils; his obvious desire to be understood in all his varieties of treatment; his close and happy mode of investigating disease; the value of his inductions, drawn from those investigations; the solid basis on which all he said, and all he did, were founded; the worth and frequency of his clinical remarks; the soundness of judgment which was displayed in the treatment of every case under his care; and the equally pleasing and instructive nature of his lectures;—have been such as to gain for him alike the confidence and esteem, as well of his pupils as of his patients, and to awaken the sincere regret of both, at being compelled to lose him.

Thus, Sir, do you see how different may be the feelings entertained towards two individuals, filling exactly similar public situations: the one shall be doubted, distrusted, and unheeded, on his departure; while the other shall be esteemed, confided in, and beloved by all who are connected with him, and his loss be generally lamented. So does merit always meet with its reward.

I am, Sir,

You obedient servant,

THOMAS CARTER.

21, College Street, Glasgow,
Nov. 1, 1828.

PHRENOLOGY.

To the Editor of THE LANCET.

SIR,—The following remarks on Phrenology, and more especially on the so-called organ and faculty of Firmness, were written a short time since for a periodical published, during a few weeks, in this town; as, however, your Journal has a very extensive circulation here, and indeed in all parts of the country, perhaps you will favour me by printing the subjoined in your columns. That you will do so I am induced to hope from the circumstance of your having already, on several occasions, admitted into the pages of THE LANCET observations both for and against the doctrine of phrenology.

Δ.

Birmingham, Oct. 15, 1828.

"Phrenology is a new system of philosophy, founded on observation and induction, and on the invariable laws of nature."

SPURZHEIM.

IF there be one feature by which the literary aspect of the present age is characterised, it is the prevalence of common sense, even in the highest departments of reasoning and philosophy. The ingenious theories, and amusing hypotheses, which stimulated the talents, and excited the literary rancour of our forefathers, are now consigned to a well-merited oblivion; and we reflect, with a contempt only to be equalled by our indifference, upon the doctrines of the universalists and nominalists—the immaterialism of Berkeley—the pre-established harmony of Leibnitz—and the idealism of Hume: an alchymist would be in a fair way of becoming a ward of chancery; and, perhaps, throughout the whole of Europe, a single individual could not be found mad enough to expect, except in his dreams, that he might discover the philosopher's stone. But, as though to dim the lustre of our era of common sense, a sect has recently arisen, which, under the appellation of "the Phrenologists," is busily propagating absurdities derided by the wise, but from their novelty, and the resolute quackery by which they are accompanied, not ill-calculated to catch the ignorant and unwary. From the nature of this Journal, it will be impossible to bring forward one tithe of the objections which may be urged against phrenology; but enough, and more than enough, it is hoped, will be exhibited to show the shallowness of the reasoning by which this doctrine is supported.

Phrenology professes, by observation, to trace the connexion between certain alleged developments of the brain, and certain mental emotions and impulses, and intellectual

operations. But if it be impossible, from circumstances of uncontrollable force, to trace this connexion, an insurmountable difficulty presents itself at the very threshold; and although we may persevere for ever in conjecture, we shall not approach one step nearer to the proof. That this difficulty does actually exist, a little consideration will sufficiently demonstrate.

It is surely an objection fatal to phrenology, that any one of the various and blended emotions by which the mind of man is liable to be agitated, may give rise to any conceivable action or train of actions.—Merely from actions, therefore, it is impossible for us to judge of the motives or emotions whence they may have sprung. The process of reasoning pursued by the phrenologist, however, is founded upon a different assumption. Taking it for granted that his general doctrine is correct, and that the mental affections are indicated by certain elevations of the brain, he examines a head, and finds, or imagines, or pretends, that he finds, some particular and marked development; he then makes a few superficial inquiries as to the actions of the individuals, and after assigning to these actions the motives or emotions which he conceives most plausible, he forthwith, with matchless impudence, or matchless credulity, delineates their immutable boundaries and localities on the brain. How is it possible, as no one particular action is significant of any one particular emotion, for the phrenologist to affirm, that whenever he finds a particular developmeat of more than ordinary magnitude, he also finds a particular passion in excess? The development, most certainly, may be seen, (although even here imagination is not without its use), but the passions, knotted and ravelled together in inextricable confusion, will for ever elude the most penetrating research. It is barely *possible*, that by a very protracted observation, we may form some loose conception of the characters of those with whom we are in the habit of frequent intercourse, although, even under such circumstances, we find ourselves liable to continual mistakes; since we offend when we expect to please, we excite when we expect to damp, and exasperate when we expect to mollify. How seldom, indeed, does it happen, that two persons can be found to agree as to the character of the same individual. Phrenology, however, is founded upon a far inferior species of induction, upon the common gossip of the day, upon the partial representations of friends or enemies, or upon a few insulated actions of public and notorious characters, of conquerors and cut-throats, statesmen and pickpockets, philosophers and quacks.

The difficulty of analysing the complicated emotions of the human mind, and of developing the particular train of ideas which leads to any given action, has long since been admitted, not only by philosophers, but by the great bulk of mankind. Godwin, in his Political Justice, Book vii, c. 4, exclaims, "Who is it that, in his sober reason, will pretend to assign the motive that influenced me in any article of my conduct? The attempt would be presumptuous and absurd, even though the individual who was to judge me, had made the longest observation of my character, and been most intimately acquainted with the series of my actions. How often does a man deceive himself in the motives of his conduct, and assign to one principle what in reality proceeds from another. Can we expect that a mere spectator should form a judgment sufficiently correct, when he who has all the sources of information in his hands is nevertheless mistaken? Is it not to this hour a dispute among philosophers, whether I be capable of doing good to my neighbour for his own sake?" It is also remarked by Jeremy Bentham, in his Rationale of Judicial Evidence, Vol. i., p. 191, "That of the causes of mendacity and veracity, the list is the same as that of the causes of human action; no action so good or so bad that it may not have had any sort of motive for its cause."

In confirmation of the above views, let us for an instant direct our attention to a few of those individuals who have made the greatest noise in the world, and we shall soon be ready to admit how little we know of their real motives and characters. Was Cromwell a hypocrite or an enthusiast? Was he a patriot or a tyrant? Was he pushed on by circumstances from one step to another, or did he, at a distance from his objects, coolly weave the subtle web of his policy? Was he bloody-minded or humane? Was he brave or cowardly? Or, let us take the character of his illustrious cotemporary, Hampden. Was this man actuated by a love of freedom and of his country, or by the sullenness of disappointed ambition? Had Hampden been in Stafford's place, might not Hampden have become a courtier and a tyrant? Nay, has not Hume been charged with illiberality for expressing a doubt as to the pure patriotism of this man? Who, moreover, will pretend to fathom the depths of such a mind as that of Buonaparte? Who will attempt to make the requisite allowances for impelling circumstances, for the force of education, and the character and spirit of the times? Was it revenge or fear that prompted the assassination of the Duc d'Enghien?

Were men actuated by simple uncompounded motives, the difficulty of discovering these motives by actions would be al-

most insurmountable; but how immeasurably is the difficulty increased, when, as is almost always the case, our emotions are combined in an endlessly diversified manner, and whilst each ingredient communicates to the mass a totally different character. The shallow phrenologist, pluming himself upon his pert philosophy, would not hesitate, most oracularly, to answer any of the above interrogatories; but surely the man of sense will pause: "Fools rush in, where angels fear to tread."

There is, besides, another circumstance which presents an insurmountable obstacle to the discovery of original capabilities, viz. the powerful influence of education, consisting of all the varied events instrumental in the formation of character. According to the opinion of Helvetius, and of many other French philosophers of the last century, education was all-powerful, and natural disposition nothing. Here, however, they carried a doctrine, which is true in a general measure, to the confines of falsehood. Dr. Thomas Brown seizes on the correct medium, where he says, in his Lectures on the Philosophy of the Human Mind, Vol. ii. p. 409, "The mere determination of the mind, in early youth, to a particular profession or speculative science, though it may have arisen from accidental circumstances, or parental persuasion only, and not in the slightest degree from any preference or impulse of genius at the time, is sufficient, by the elements which it cannot fail to mingle in all our complex conceptions and desires, to impress for ever after the intellectual character, and to bend it, perhaps, from that opposite direction into which it would naturally have turned. How much of what is commonly called genius, or at least how much of the secondary direction of genius, which marks its varieties, and gives it a specific distinctive character, depends on accidents of the slightest kind, that modify the general tendencies of suggestion by the peculiar liveliness which they give to certain trains of thought." That the character is powerfully influenced by education, the most strenuous phrenologist will not deny. Even admitting, then, that by some bold and fortunate conjecture, an advocate of this new-fangled philosophy should hit upon the true character of one of the subjects of his investigation, how is he to know what portion of the character springs from circumstances, and what portion from natural susceptibility or capability? It will not be denied that vanity, or the love of approbation, for instance, if forming the groundwork of a character, might, from the influence of accidental circumstances, and by stimulating faculties otherwise not naturally powerful, produce a poet, a warrior, or a statesman; so that the engrafted qualities should obtrude themselves more strikingly upon the eye than the primitive one whence they spring. How is it possible, amidst such a confusion of qualities and emotions, some roused into action and fostered by circumstances, and others existing in indigenous vigour, to pursue the strict inductive method of reasoning?

Admitting, however, for the sake of argument, that it is possible by a close scrutiny, to ascertain the secret springs of human conduct, it will appear, on a reference to the list of phrenological faculties, that, in the conduct of their observations, the phrenologists themselves have fallen into the strangest blunders. The mental apparatus with which they have furnished us, is evidently the work of their own hands, and not that of the Supreme Creator of all things. Accordingly, we find that this apparatus is sometimes clumsy from its excess; at other times, it is inefficient from its scantiness. Upon a certain part of the scull, according to the phrenologists, is situated a particular development, designated by them *the organ of firmness*, and, as they maintain, indicative of a corresponding faculty. But had the phrenologists, instead of their puerile trifling with calipers and compasses, only attended to the workings of their own minds; nay, had they fairly followed out their own doctrines to their legitimate extent, they must have discovered, that such *an organ* could not, by possibility, exist, and for this plain reason, *because the corresponding faculty itself does not exist.* Firmness of conduct (for it is no quality of the mind) can arise from no other cause than the excess of one passion, or class of passions, above some other conflicting passion, or class of passions. The firmest of all men would consequently be he who had but one passion to gratify, since he would sternly persevere in his course without any mental conflict, or clashing of emotions. The most vacillating of all individuals would be he whose emotions, on all occasions, were precisely balanced; such an individual would, indeed, be completely disabled from acting at all. If a man were animated, in an equal degree, by the two passions of avarice and a love of approbation, his conduct would necessarily be highly vacillating; since, according to the operation of circumstances, now the one, and then the other of these passions, would gain a temporary ascedency, and his dearest friend would find it impossible to calculate with certainty upon his actions on any given occasion. But if one of these emotions were much stronger than the other, as there would then be no mental struggle, so the individual would go straight forward to the attainment of his end, the gratification of his ruling passion. When Othello gives

vent to his jealous hate of *Cassio*, as he is restrained by no feeling of love towards *him*, he exclaims, with savage firmness, "Had he as many lives as he has hairs, my great revenge had stomach for them all." But when he meditates the murder of his beloved wife, of her "in whom he had garnered up his hopes," his soul is torn with conflicting emotions, and he exclaims, every word marking indecision, "But then Iago, oh! Iago, the pity of it, the pity of it, Iago!" And even when he at last destroys her, it is because his jealousy, a strange compound of various simple passions, triumphs over the strong suggestions of love; but still his vacillation is apparent in every word and action. "He would not scar that whiter skin of hers than snow, and smooth as monumental alabaster;" and "he kissed her, ere he killed her, killing himself to die upon a kiss."

From the above observations, all unprejudiced minds, it is hoped, will be ready to admit that the evidence in favour of the phrenological doctrines is, from the very nature of things, deplorably insufficient, and that the metaphysics of this would-be science are taken up on the most superficial examination, and have no reference to the principles of our common nature.

CLINICAL LECTURES AT ST. BARTHOLOMEW'S.

To the Editor of THE LANCET.

SIR,—Of all the various modes of conveying information to the pupil, there is certainly none which ranks so deservedly high, as that of giving clinical lectures; this practice has been partially adopted by Mr. Earle, at St. Bartholomew's Hospital, but, I am sorry to inform you, not to the equal accommodation of all the classes, since the hour chosen on the Friday evening, is that on which the surgical lectures have been delivered at this school for the last three years: Mr. E. has had this circumstance duly explained to him by one of my fellow pupils, and was kind enough to give it consideration, but, as stated in one of his subsequent lectures, without any possible chance of removing the evil, from the fact of every other hour in the week being occupied. Now if Mr. E. would *condescend* to consult some evening with the assembled pupils on this subject, I think there would not be much difficulty in fixing on some other hour, quite as convenient to the different classes, and also to himself, as that on which he now lectures.*

If the hints which Discipulus has offered for the consideration of Messrs. Vincent and Lawrence should have the effect of extracting from them clinical lectures, I trust this will have the additional advantage of causing them to take into consideration, the convenience of all the classes, so that if they are obliged to lose the valuable lectures of Mr. Earle, they may not also lose those of Messrs. Lawrence and Vincent.

Hoping you will give admission to this letter,

I remain, Sir,
Your obedient servant,
AN ALDERSGATE STREET PUPIL.

59, Aldersgate Street,
Nov. 3, 1828.

THEFTS IN THE DISSECTING-ROOM OF ST. BARTHOLOMEW'S HOSPITAL!

To the Editor of THE LANCET.

SIR,—I can no longer refrain from exposing, through the medium of your spirited Journal, the infamous and dishonest practices which are now become so frequent at this Hospital. Would you believe, Sir, that men aspiring to the appellation of gentlemen, can so far disgrace themselves, as to rob their fellow students of dissecting instruments, preparations, or whatever may chance to lay in their way; such, however, is an every-day occurrence, notwithstanding the efforts of the Demonstrator to discover the thieves. An application of your useful instrument will, however, I trust, induce those individuals to reform, especially if their names be made public, which will not be so difficult as they may imagine, as strong and well-founded suspicions are entertained.

Amidst the numerous abuses which you have corrected, to the great and lasting benefit of the whole profession, I trust this will not be thought unworthy of your notice.

I have the honour to remain, Sir,
Your most obedient servant,
A STUDENT.

St. Bartholomew's Hospital,
Nov. 8, 1828.

[A *Bow Street officer*, will, we fear, be the only effectual remedy for the evils complained of in the above letter. Communications of a similar nature have reached us from many of the pupils.—ED. L.]

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* There cannot be much harm in proposing for consideration, Monday or Wednesday, from seven till eight, P. M.—Tuesday, Thursday, and Saturday, from six till seven, P. M.

BIRMINGHAM TOWN INFIRMARY.

To the Editor of THE LANCET.

SIR,—Knowing your readiness at all times to come forward on the behalf of the aggrieved medical pupil, and to eradicate, if possible, the "hole-and-corner" workings which are too frequently found in public institutions, I trust you will, on this occasion, give publicity to the following facts in the pages of your praiseworthy Journal, which has doubtless tended greatly towards bringing the profession to its present improved state. I need scarcely add, that a little of your *antiphlogistic treatment* would be of infinite service to the Birmingham Town Infirmary. You must first know, Sir, we have six surgeons and a house apothecary, belonging to this institution. From the great number of patients admitted, it would prove an extensive field for the cultivation of pathology, were it not for the secret manner in which the post-mortem examinations are conducted, arising, in some degree, from the neglect of duty in the surgeons, but principally from the ANXIOUS DESIRE of the HOUSE APOTHECARY to gain *medical information*, or what is still more probable, (as I am creditably informed,) a series of "morbid spicimins." I ought, however, to state, in justice to Mr. Cox and Mr. Baynham, (two of the surgeons,) that they examine their own patients in the presence of their own pupils, and I have occasionally witnessed, with a great deal of pleasure, the former invite many other pupils; but the other surgeons, in gratitude to the house apothecary for frequently attending to their out patients, allow him the sole privilege of examining their deceased, thus leaving it entirely at his option, whether or not the pupils shall be present. I would ask, Mr. Editor, are they present? No! for they are never informed at what hour the examinations will take place. The impropriety of this proceeding must be evident, when it is known, that the pupils pay premiums considerably increased, from the expectation of deriving greater advantages from this valuable institution. I would earnestly recommend the surgeons not to leave the post-mortem examinations to the "spicimin" collector, but conduct them themselves, in a more liberal manner, i. e., in the presence of all the Infirmary pupils; and, above all, not to forget giving them that necessary information, which certainly they have a right to expect. At present, I am sorry to say, "Νάσσει τὴν δικὴν ἀδίκια," though by early noticing this, you may, perhaps, cause that speedy reform which is so ardently wished for by

Your obedient servant,

Ἀληθινὸς.

Birmingham, Nov. 10, 1828.

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BOOKS RECEIVED FOR REVIEW.

A Practical Treatise on Parturition, comprising an Account of the Diseases of the Pregnant and Puerperal States. By Samuel Ashwell, Surgeon. To which are added, Two Papers; the one on Abdominal Surgery, the other on Transfusion; presented by Dr. Blundell, of Guy's Hospital. pp. 546. 8vo. Thirteen Plates. London. Thomas Tegg.

A System of Human Anatomy, translated from the fourth edition of the French H. Cloquet, M. D.; with Notes, and a corrected Nomenclature, by Robert Knox, M. D. F. R. S. E., Lecturer on Anatomy, Edinburgh. pp. 837. 8vo. Edinburgh. Maclachlan and Stewart.

Pathological and Practical Researches on Diseases of the Stomach, the Intestinal Canal, the Liver, and other Viscera of the Abdomen. By John Abercrombie, M. D. pp. 396. 8vo. Edinburgh. Waugh and Innes.

The Midland Medical and Surgical Reporter, No. 2, for November. Worcester. Deighton.

Medical Botany, Nos. 22 and 23, for October and November. Plates. London. John Churchill.

A Supplement to Myology, illustrated by Coloured Plates, on a peculiar construction; containing the Arteries, Veins, Nerves, the Abdominal and Thoracic Viscera, Brain, &c. &c. By E. W. Tuson, Lecturer on Anatomy, &c. London. Callow and Wilson.

[To be continued.]